Modelling vegetable marketing systems in South East Asia: phenomenological insights from Vietnam

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Keywords

Food industry, Marketing systems, Buyer-seller relationships, Supply chain management, Vietnam, Wholesaling

Abstract

This article presents a conceptual framework for the analysis of vegetable supply chains in a South East Asian context and the role wholesale markets play in these chains. Following a review of the literature on food marketing systems in developing countries and preliminary fieldwork in South East Asia, a holistic framework is proposed, including what are perceived to be the critical factors in the development of improved fresh food marketing systems: domestic legal and policy factors, international trade policies and food markets, history, geography, and cultural and social norms. The particular role of trust and collaboration among stakeholders in the Ho Chi Minh City vegetable marketing system is highlighted.

Introduction

The aim of this article is to develop a conceptual framework for the study of fresh vegetable supply chains in South East Asia in order to assess the role of wholesale markets in a Vietnamese context[1]. Studies on evolutionary trends in food marketing structures are reviewed and different frameworks of urban food systems are discussed. Insights from preliminary fieldwork in South East Asia and Vietnam complement the literature review. A conceptual framework is proposed for the study of an urban fresh vegetable marketing system as it evolves in interaction with its environment. Among the critical factors that warrant further investigation, the paper focuses on social and cultural elements within local institutions and their interactions with the stakeholders within the marketing system.

Food distribution in Vietnam: rapidly changing situations

Vietnam is a predominantly agricultural country. With an annual per capita income of just US$425, the World Bank[2] considers Vietnam to belong to the low-income group of developing countries (per capita gross national income under US$755). However, Vietnam is not considered as a less developed country by the United Nations[3].

The country has experienced strong economic growth in recent years, but unlike many of its neighbours, this has only been slightly curbed by the Asian financial crisis. In 2002, the country's gross domestic product (GDP) rose by 7 per cent. What is more, although the urban population in Vietnam only constitutes 20 per cent of the total population, this proportion is growing with strong migration from the rural areas (Drakakis-Smith and Dixon, 1997). Furthermore, cities account for 70 per cent of the national GDP due to industrial and trading activities. This brings annual per capita GDP to US$1,395 in the urban centres of the country. Although Vietnam still relies on an agriculture-based economy and remains a developing country, if one only considers the cities, economic indicators are more...
representative of the middle-income group of countries in transition.

Following this economic development, household revenues have increased and changes in food consumption habits are appearing. Families with growing incomes are buying more food rather than producing it themselves. Fresh vegetable sales in Vietnam have increased by 50 per cent between 1987 and 1999 (Figué and Bricas, 2002). Vegetables are now staple foods in Ho Chi Minh City, the largest city in Vietnam, with an unofficial 8 million inhabitants. According to a survey of city households, 94 per cent of Ho Chi Minh City families consumed vegetables with almost every meal (Potutan et al., 1999). What is more, 97 per cent of respondents claimed they normally purchased fresh vegetables from the market on a daily basis.

Nevertheless, there has been a major shift in the structure of food distribution in South East Asia from small independent stores supplied by wholesale markets, to supermarkets supplied by contracted producers and manufacturers (Department of Foreign Affairs and Trade, 2002). Where new supermarkets are aggressively promoting their business and building independent food supply chains, the role of the wholesale market in the distribution of fresh food is generally declining.

In parallel, the Vietnamese government has definite plans to encourage economic development by liberalising domestic food markets and international trade, building new wholesale markets, logistical centres and industries to facilitate the marketing and processing of fresh foods, and encouraging bigger stakeholders in the marketing channels to develop (VNS, 2001). Authorities are also encouraging fresh produce farmers to use less chemical-intensive production methods to ensure higher food safety standards.

Fresh produce wholesale markets within the food marketing system

Though food marketing channels are rapidly evolving in South East Asia from traditional shops to supermarkets and hypermarkets, the great majority of fresh food sold to the urban consumer still goes through a wholesale market (Department of Foreign Affairs and Trade, 2002). We choose to define wholesale markets as a physical place where professional agents congregate to buy and sell physically present products from/to other professionals.

This working definition encompasses both assembly and metropolitan wholesale markets and insists on the presence of the products traded by businesses to other businesses as opposed to trade with the final consumer. Wholesale markets still play an important role in Asian food marketing systems, mostly due to the current Asian preference for purchasing of fresh food from small, neighbourhood retail markets and shops rather than supermarkets and self-service convenience stores (Yasmeen, 2001).

Facing the common belief from administrative stakeholders that the traditional informal market in their country is inefficient through lack of organisation and competition, some international development agencies (The World Bank, FAO) have proposed building terminal wholesale markets to facilitate food marketing in the metropolitan centres (Tollens, 1997; Yasmeen, 2001). What is more, many development economists have advocated the building of terminal wholesale markets in urban areas as a more efficient system for distributing fresh food in the developing cities. These wholesale markets are seen as an ideal meeting point for supply and demand. The concentration of traders is said to satisfy the competitive conditions necessary for establishing a fair price for agricultural produce (Goosens et al., 1994).

On the other hand, research in Africa shows that many wholesale markets have failed to encourage efficient marketing practices (Paulais and Wilhelm, 2000). On the other hand, interesting results have been achieved in Taiwan where government planning has led to the construction of a successful network of fresh food wholesale markets (Liu, 1994).

Centralising distribution into a terminal wholesale market runs counter to the growing trend to promote short and local food supply chains for cities in both the developed and developing countries. This latter approach advocates direct links between producers and retailers and the development of peri-urban[4] agricultural production and marketing (Koc et al., 1999; Midmore and Jansen, 2003). At the same time, supermarkets and the larger more sophisticated retailers are increasingly building long-term contracts with small farmers or collectors in the vicinity of their retail stores to reduce inventory levels and operating costs, especially for fresh produce.
This integration of supply chains by supermarkets is not limited to the industrialised countries as recent research on Latin America has shown (Reardon and Berdegué, 2002).

Local authorities in Ho Chi Minh City have sought to build wholesale markets in their city to address alleged failures in the marketing system for fresh produce. These projects have been planned without any consultation from traders or other stakeholders and could have a major impact on the activities of the many wholesalers currently trading in existing markets.

Rapid changes in the fresh produce marketing system in Ho Chi Minh City are happening; government policies influence the development of food supply chains, stakeholder interactions and the role a wholesale market would play. Thus, a more holistic approach is the more relevant way to study the food marketing system because it takes account of all possible environmental interactions with the stakeholders within the system.

Methodology

A phenomenological approach to conceptual framework building

The model of a vegetable marketing system proposed below is the result of a phenomenological approach, which successively uses theory and field work to build up the conceptual framework representing the object of study (Sterns et al., 1998). The literature review encompassed theoretical works in geography, development economics and marketing. Empirical reports and case studies on food marketing systems in both developed and developing country contexts were also examined.

First, the review of existing literature resulted in a conceptual framework to model the fresh food marketing system in a South East Asian context (Cadilhon et al., 2002). Then, field trips to different wholesale markets around the world have shed light on how different fresh food distribution systems have evolved in different countries (for a review of European wholesale markets, see Cadilhon et al., 2003). Subsequently, three months of preliminary fieldwork in Hanoi and Ho Chi Minh City, Vietnam, were spent observing fresh food markets and interviewing key stakeholders to check the relevance of the proposed conceptual framework. The checklist used (see Appendix) was derived from the marketing literature (Adcock et al., 2001) and management literature on complex problems involving multiple agents (Montbel et al., 1998). The stakeholders interviewed included wholesalers, hauliers, traditional retailers, modern food marketing sector managers, input manufacturers, government officials and academics working on food and agricultural issues. Unfortunately, there was no time to extend interviews to farmers, collectors or consumers, but their viewpoint was provided through the secondary source of academics working on food issues and peasant livelihoods. Observations from the field have confirmed the relevance of the chosen conceptual framework and enabled its adaptation as presented below.

Differentiating sub-systems to take account of product-specific characteristics

A conceptual framework applicable to the study of food marketing systems was proposed by Fellows (2002), focusing on the different food supply chains to urban and rural consumers, differentiating these supply channels by product type. Separating the marketing chains by product enabled the identification of their specific technical characteristics. For example wheat grain and milk are two products that are distributed in different ways as the former is much less perishable than the latter. This differentiation by product type can also be applied within the vegetable sub-sector: Braadbaart (1994) emphasised differentiated product characteristics to study chilli and cabbage marketing in the central Java city of Bandung. Bergeret and Ha (1997) separated pig and garlic marketing chains in Vietnam while Le Goulven (1999) extensively described product, credit and information flows within the pig marketing chains of North and South Vietnam.

Focusing on specific product chains makes it possible to determine possible vertical co-ordination practices among stakeholders in a given supply chain (Hobbs, 1996). This also leads to a further examination of the place of individual stakeholders and their interactions within the marketing system. However, empirical observation of the food marketing system in Ho Chi Minh City focusing on the
vegetable marketing sub-system showed that the product specificity of the stakeholders was not as pronounced as in the case studies from the literature review. Stakeholders who specialised in one or two products were observed, but several stakeholders at each level of the vegetable supply chain were generalists.

Conceptualising food marketing systems

The evolution of food marketing systems

According to Kaynak (1986, p. 5):

...the food “marketing system” is a primary mechanism for co-ordinating production, distribution and consumption activities in the food chain. In this context, marketing includes the exchange activities associated with the transfer of property rights to commodities, the physical handling of products and the institutional arrangements for facilitating these activities.

Several authors have studied the structure of food marketing using a three-phase development model to describe the evolution of the food marketing system over time (Kaynak, 1999; Kobayashi, 2000; Mittendorf, 1986). The role of food marketing in a developing country is expected to change with its economic development (Kaynak, 1999). As a country develops, the structure of its urban food marketing system will shift from the predominant role held by many small scale traditional distributors (Phase I) to more well-established grocery stores and specialised shops as in many European cities of the mid-twentieth century (Phase II), to a market where highly developed integrated food retail chains are dominant (Phase III).

Kobayashi (2000) extrapolated this development pattern to form four groups of countries depending on the development stage of their fresh produce wholesale marketing system and the degree of government intervention in marketing. The developing phases were defined by an increasingly clear specialisation of wholesale and retail activities and increasing integration of supply chains by retailers. In parallel, as countries went through this development process, governments initially regulated and directly participated in the food marketing systems to move subsequently into a phase of market liberalisation.

The question thus arises: where should Vietnam be placed in this development continuum? The southern part of Vietnam has gone through a turbulent history in the twentieth century. Enjoying a private enterprise economy until 1975, all activities were either collectivised or nationalised when the country was reunited under communist rule. Accordingly, vegetable production, marketing and input supply was undertaken by a farmers’ co-operative in every village. One major drawback of this system was the lack of responsibility of the farmers in the decision-making of the co-operatives, which were run by management teams. The production decisions were often at odds with market conditions resulting in structural market malfunction and high post-harvest losses. Finally, little attention was given to produce quality and quantity (Jansen et al., 1996).

De-collectivisation started in 1981 and a free-enterprise market for food was progressively introduced with the larger economic reform policies of 1986. Recent studies on vegetable marketing in Vietnam report several coexisting types of food marketing organisations: strong retail market share of both fixed traders (with a stall on a permanent spot or market place) and itinerant traders (circulating on the streets with their goods) (Quang, 1999); the spread of a catering industry also dependent on wholesale markets (Le et al., 2000); and the strong development of integrated retailers for niche products such as “safe vegetables”, which are vegetables grown with less chemical inputs (Gia, 2000). Furthermore, observation of the Ho Chi Minh City marketing system for vegetables showed that the marketing chains for vegetables were numerous and competing with one another. Figure 1 portrays a conceptual framework of the vegetable marketing chains in South Vietnam, centred on the Ho Chi Minh City consumer market. This type of model, adapted from Drakakis-Smith (2000), represents the possible channels that distribute fresh vegetables to the city. It differentiates stakeholders by their function and store location at the wholesaler and retailer levels, where major differences can be observed. There is no available data on the number of stakeholders working within each channel, especially at the retailer level as many businesses remain informal. However,
Figure 1 Coexisting vegetable supply chains to Ho Chi Minh City (Vietnam)

Key:
- System frontier
- Transactions and stakeholder relationships
- Influence or impact interactions (all environmental components also interact with each other)
stakeholders in Ho Chi Minh City estimate that the market share for fresh food sold from the wholesale markets and their retail and catering customers exceeded 93 per cent in 2002.

Vegetable farmers get their agricultural inputs from local input traders who can be found in most villages. These input traders get their supplies from regional input wholesalers, who in turn source their products from the manufacturing firms. Market gardening is carried out by vast numbers of farmers in Vietnam as it brings much higher gross income per land area than rice production. Indeed, incomes from market gardening are 45 times higher than incomes from paddy farms for a given land area (Cadilhon, 2001).

The wide variety of regional agro-ecological conditions in the country enables certain areas to specialise in vegetable production while peri-urban market gardeners can benefit from being very close to the consumer areas to grow very perishable items like aromatic herbs. It is worth highlighting that collection and transport is done here by the same agent. Stakeholder interviews and observation in the field have shown that these mobile collectors were not very numerous compared with the numbers of other stakeholders and could act as a funnel in the supply chain. Some of the larger collector firms were former state-owned marketing boards which have had to give up their monopoly on horticultural exports and marketing. On the other hand, wholesalers were numerous, small and stationary stakeholders. The wholesale markets in Ho Chi Minh City are nightly gathering points for collectors who sell vegetables in bulk to the wholesalers. In turn, the produce is sold by the wholesalers to:

- caterers, either itinerant or fixed, who prepare cooked food;
- specialised vegetable retailers in both formal and informal fixed markets; and
- hawkers who peddle their vegetables to the final consumer on the streets of the city.

In parallel, other supply chains are directed toward a cash-and-carry firm that has developed dedicated producers and collectors to supply fresh vegetables to its stores, and supermarket chains that are also starting to experiment with direct supply channels from producers of “safe vegetables”. The customers of the cash-and-carry firm are other food businesses within the formal sector (restaurants, hotels). It is thus represented on a level with the wholesale market traders in Figure 1 as it also acts as a wholesaler for other businesses. Only a few direct links between farmers and retailers have been established in the niche market for “safe vegetables”.

Currently, there is no evidence of any direct marketing links between farmers and final consumers.

To conclude, it is difficult to place the past and current marketing structure for fresh vegetables in Vietnam into one of the three development phases described by Kaynak (1986). There is evidence, both in developing (Department of Foreign Affairs and Trade, 2002) and developed countries (Cadilhon et al., 2003) that these different development phases coexist. There is not necessarily a progressive substitution of one by the other. In more developed South East Asian countries, sales of fresh produce from the traditional retail markets (as opposed to supermarkets and self-service convenience stores) remain strong: 65 per cent in Thailand and 80 per cent in Taiwan (stakeholder interview). This coexistence reflects the need for supply chains to adapt to different consumer constraints and demands over time. Hence, the evolutionary model presented above does not fully account for the complexity of existing fresh food marketing systems in Vietnam. To better conceptualise the different stakeholders and their interactions in the existing marketing systems, the following section reviews several alternative propositions for modelling a market system.

Stakeholder networks and relationships in food marketing systems
Observations in Ho Chi Minh City have found that the connections between stakeholders within the vegetable marketing system cut across supply chains. Businesses and individuals all compete and collaborate within a complex network of stakeholders to bring fresh vegetables to the end consumer. Therefore, it seems pertinent to use a network framework to examine the current vegetable marketing system in Ho Chi Minh City.

The development of a network framework and the study of relationships between firms is currently experiencing renewed interest among researchers and stakeholders in the field of business management and organisational science (Ford et al., 1998; Lambert and Pohlen, 2001). A network approach not only considers the vertical links
between firms in a supply chain but also the horizontal relationships built among competing and collaborating firms, their suppliers and customers (Lazzarini et al., 2001). These relationships are not only product marketing and procurement links, but also encompass information sharing about market conditions, joint planning and problem solving and specific transaction investments to better satisfy the specific needs of the business counterparts. All these elements have been found to enhance good inter-firm relationships, which indirectly increase firm and supply chain performance (Ford et al., 1998).

Therefore, a network framework inserted in its broader systems environment context is the most appropriate representation of the vegetable marketing system in Ho Chi Minh City.

Integrating an interacting environment around the marketing system

In Kaynak's (1986) model, the environment is represented by the economic and institutional factors and the technical, legal and policy factors. Both the literature review and observations from the field have confirmed the importance of environmental impacts on the food marketing system.

Domestic legal and policy factors

First, government and city authorities and their decisions play a notable role in shaping marketing systems. Public decisions can create public goods or influence the way private firms operate in order to encourage public good objectives (Beguin and Derycke, 1994). This is particularly true for city authorities in the context of developing food marketing systems in the cities (Hubbard and Onumah, 2000; Yasmine, 2001). In Vietnam, the state government and its representatives in the city authorities are now inducing major changes in the structure of the fresh produce markets by building new physical markets and encouraging traders to use them.

Government intervention in markets and economic policies have had mixed effects in many socialist countries, but liberalisation policies have not proven to be the most efficient remedy either (Thorbecke, 1998). Authorities have a clear positive role to play in devising adequate legal (Cullinan, 1997) and institutional frameworks (Liu, 1994) to let private firms manage the marketing system. In Vietnam, the economic reforms of 1986 have led the way to a market economy where free-enterprise is now officially recognised as enhancing economic development. This has enabled many small family firms to come out of the informal sector and has helped boost economic activity in the rural and urban areas.

Agricultural policies have a profound role in defining the products one can find in markets by providing incentives for the production of certain crops and animals while discouraging others (Bazin and Roudart, 2002). In Vietnam, rice production used to be compulsory for all farmers cropping irrigated low-land areas to fulfil food security objectives (Cadilhon, 2001). After 2000, farmers were allowed to choose the use of their land. This liberalisation led to a major shift of land use out of rice production into horticultural crops and export-oriented crops such as coffee. Agricultural extension services also helped direct the rural development process.

History

The historical context of a region can also explain many aspects of present institutional and organisational interactions. Concepts of path dependency on economic development and institutions have been widely acclaimed (Currie, 1968; North, 1990, 1994).

In Vietnam, the path dependency of economic development has been radically disrupted by the collectivisation process of farm production and the state planning of the economy. One example of this was the disruption brought to the fresh vegetable distribution system by a Maoist policy of autonomous provinces in the late 1970s (stakeholder interview). The high plateau region of Da Lat located over 100km North East of Ho Chi Minh City used to grow most of the fresh vegetables for the former Saigon when Vietnam was still divided between North and South. When the country was reunified in 1975, the state imposed a strict autonomy policy on all provinces which meant that Ho Chi Minh City had to produce and market its own vegetables. Production in the Da Lat area decreased because of the loss of the Saigon market. On the other hand, peri-urban market gardening was not sufficient to satisfy urban demand (Jansen et al., 1996). When the food markets were returned to free-enterprise in 1986, production in the high plateau area resumed as well as the daily transport of fresh vegetables to the city. The
Da Lat area remains the major source of fresh vegetables for Ho Chi Minh City.

International trade policies and food markets. Moreover, the interactions of international commodity markets with national and even local marketing systems must not be forgotten. Unexpected fluctuations in commodity markets have led several states and farmer households who were dependent on these commodities to lose money. What is more, multilateral agreements meant to restrain these fluctuations have generally failed (Chalmin, 2000). In Vietnam, farmers are observed to be very receptive to market changes. When world paddy prices were at their lowest towards the end of the 1990s, farmers were encouraged to switch to more profitable crops like vegetables for the local market or tree crops (fruits, coffee). However, the area of land under vegetables has notably decreased in 2002 compared with 2001 in the south of Vietnam. This has been interpreted by an increase in world paddy prices, which made farmers switch back to rice production (stakeholder interview).

Tariff liberalisation and free trade agreements between countries have also had major implications on how food markets may be further regulated within nations (Son, 1999). Likewise, opening of countries to export markets with more stringent quality standards can modify the structure of primary production and of supply chains to accommodate these special standards (Dolan and Humphrey, 2000). For example, while many interviewed fruit traders complained about the difficulty of finding graded produce at the farm level that could be purchased for the agro-industry sector or for exporting, the production and marketing system for the dragon fruit or red pitaya (Hylocereus undatus) seems to be a notable exception in Vietnam. A substantial part of the dragon fruit production around Phan Thiet City in Binh Thuan Province is destined to export markets in China, Thailand, Europe and North America (Cadilhon, 2001). However, customers in these countries have differing tastes. While most of the dragon fruit producers do not take particular notice of these differences, the collectors who also act as wholesalers and exporters, grade the dragon fruits to meet these different requirements and benefit from price incentives in the various markets. These collectors-exporters are effectively the drivers of change in the supply chain. Only the bigger producers who are informed of such market differences can invest in new cropping practices to try to make more of their harvest correspond to the various export standards, which will bring a better price.

Geography

Finally, the local geographical context can have clear impacts on the way production and marketing of fresh produce is done. Each region is endowed with specific comparative advantages in terms of agro-ecosystems that can lead to regional specialisation of farm production (Capt and Schmidt, 2000). In Vietnam, the high plateau area surrounding the city of Da Lat has clear comparative advantages for growing all types of vegetables, thanks to its drier, cooler climate. This climate enables growers to benefit from the more temperate growing conditions that are necessary for lettuces to form a heart, or for onions to form a bulb. The drier environment is also less favourable to disease, thus enabling market gardeners to save on the use of chemicals.

The structure of primary production can also have some impact on the capacity of farmers to enter markets. Indeed, Collins (1995) found that smaller farms in Brazil had little accessibility to grape export markets because they could not secure transport and marketing services.

Moreover, good transport infrastructure has been recognised as a fundamental element of regional planning to ensure access between farms and markets (Andan et al., 1994), especially in the context of developing countries (Dijkstra, 1996). In Vietnam, the government is investing large amounts of money into motorways to link the North and South, and bridges to cross the Mekong delta to enable trucks to reach this region where boats still remain the major mode of transport for fresh produce (Lap and Taillard, 1993).

Therefore, a wider interpretation of a marketing environment helps integrate factors that all have repercussions on food marketing.

Socio-cultural factors in vegetable marketing systems: do they matter?

Among the conceptual frameworks reviewed above, only the network approach considers some of the socio-cultural factors that may
influence the day-to-day relationships between individuals and business stakeholders in the marketing system. Despite Bartels (1963) seeing “marketing as a social phenomenon” (p. 299), the food marketing systems literature shows poor examination of the elements leading individuals to take decisions for more successful inter-firm relationships.

Institutions and how they matter
As far as South East Asia and Vietnam are concerned, the role of institutions in economic activities must be considered (North, 1994). Rules and laws are important constraints in Vietnam as it is still a highly policed and controlled state. However, informal constraints may also explain some aspects of economic activity in Vietnam. These relationships have hitherto been generally overlooked by fresh food marketing studies in South East Asia whereas they have been recognised as determinant factors in other sub-sectors, for example the importance of networks among ethnic Chinese businessmen in the Thai rice trade (Speece and Igel, 2000) and in business in general in the region (Armstrong and Siew, 2001; Jesudason, 1997; Trolliet, 1999).

The importance of trust in building lasting marketing relationships
In the food markets of South East Asia, contracts between parties to secure transactions are rare and the courts, where they exist, are powerless to enforce existing agreements or are mistrusted. As a protection against risk and in an effort to reduce transaction costs, stakeholders have created marketing networks based on trust, culture and sociological norms.

Trust and relationship building in the literature
Granovetter (1985), Platteau (1994a, b) and Moore (1994) looked at the relationships between markets, trust among stakeholders and social networks. Particularly worth highlighting is Platteau’s (1994b) review of game theory. Platteau (1994b) shows that assuming trust as a generalized conduct among players can lead to sustained win-win situations, even with some occasional cheating involved: a much more optimistic view to market relations than that obtained through the use of a prisoner’s dilemma model (Palmer, 2002).

Creating and sustaining reputation and trust between buyers and sellers is an important strategy for attenuating transaction costs (Batt and Parining, 2002; Batt and Rexha, 1999; Fafchamps and Minten, 1999; Lyon, 2000; Moustier, 1996; Tuan et al., 1999). These authors show how relationships play a wide variety of roles in agricultural trading businesses such as the provision of commercial advice, information and risk sharing, credit provision, smoothing supply and demand fluctuations, and prevention of contractual breach. Such relationships lead to efficiency-enhancing repeat transactions. All effects result in reduced transaction costs and more efficient marketing, thereby reducing post-harvest losses and moderating market disequilibria.

Observing trust and relationship building on the field
Evidence from preliminary fieldwork in Ho Chi Minh City vegetable markets supports these empirical findings. In one wholesale market, two traders reported that they tended to purchase from the same collector agents, ordering by telephone on a daily basis for delivery the next day. Prices were negotiated but in times of excess supply the buyer would “set” the price while in times of shortage the seller would drive the price. The wholesalers said they had built up relationships with their respected suppliers over many years and treated them “better” than the less regular ones from whom they purchased when necessary. Clearly, from the viewpoint of the wholesalers, there was information sharing and collaboration between collectors and their preferred customers.

On the other side of the relationship, a wholesaler in the central wholesale market of the city was seen sorting tomatoes into bags containing one or two kilograms. She said she was assembling produce for a vegetable retailer who had asked her to prepare bags of good quality tomatoes while she went on to shop for other goods in the market. The retailer would then come back to collect the tomatoes and would pay for the goods without checking the quality of contents. From the perspective of the retailer, this was a strategy to diminish time spent looking for good quality products and haggling for a suitable price. The retailer trusted the wholesaler to pick out the tomatoes of adequate ripeness for her. In exchange, the wholesaler spent time
selecting the goods for the retailer, trusting that she would effectively come back to collect the goods and settle the transaction. The wholesaler said she would provide this type of service to a customer coming on at least three separate occasions. Trust and collaboration was more quickly established here than between wholesalers and collectors.

Finally, an interview with the food purchasing manager of a cash-and-carry firm in Ho Chi Minh City provided new evidence of trust and collaboration in this particular supply chain. The cash-and-carry firm had targeted larger, more sophisticated growers and set about signing them up through a group of collectors. Currently 35 collectors sourced from many more growers, all dedicated to the cash-and-carry firm. The food purchasing manager had used experts on vegetable production and marketing in existing trading companies to establish this new supply chain. These local experts had local knowledge of the functioning and inefficiencies in existing supply chains. What is more, they also had their own networks of relations and contacts which greatly helped in setting up the dedicated supply chains for the cash-and-carry firm. Grower meetings in different areas were held to inform producers: the offer was a guaranteed market, with payment guaranteed within seven days in return for consistently good quality supplies. Confidence building among the producers was the paramount objective to achieve before any shop was opened. Building trust within the supplier base took two and a half years. Consequently, waste in the supply chain was reduced to 10 per cent by advance ordering. This meant growers harvested and collectors collected what the cash-and-carry needed rather than whatever they chose to supply. Orders were faxed daily: the cash-and-carry firm had purchased fax machines for their 35 supply co-ordinators. The cash-and-carry firm also had a policy of investing in their suppliers to build loyalty. Hence, integrated crop management was the focus of investment at the time of the field trip – the answer of the firm to the growing urban demand for “safe vegetables”.

The role of ethnicity in enhancing business relationships
The literature on trust has shown that trust between stakeholders was enhanced if all stakeholders belong to the same ethnic or cultural body. Attendance at social events was important to develop trust among stakeholders within the marketing system (Lyon, 2000; Silin, 1972). In the case of South East Asia, the alleged exploitative role of the Chinese businessman has been de-mythised. More rational explanations of their strong economic influence in the region have been formulated, such as strong ethnic community ties, sharing of informal credit and information banks, less risk-aversion than indigenous people to business (Gosling, 1983; Hafner, 1983; Landa, 1983; Rigg, 1986). Nevertheless, Chinese businessmen still control most of the fresh vegetable wholesale trade in Malaysia (Mohtar, 2000) and have dominated the trade in the past in Vietnam (Chin, 2000).

However, early fieldwork showed no clear evidence of dominance of the ethnic Chinese minority in the vegetable marketing chains in South Vietnam. Though most collectors and wholesalers in Vietnamese food supply chains have some Chinese origin, their dominance is not as obvious as that mentioned by Chin (2000). A survey of 98 Ho Chi Minh City vegetable vendors found that only two of the sampled vendors identified themselves as being of Chinese ethnicity (Potutan et al., 1999). Furthermore, the majority of traders now use the Vietnamese language to communicate with their local partners and English to deal with foreign traders.

Towards an integrated conceptual framework
The literature review and preliminary results from an earlier field trip led to the proposal of a framework to study the vegetable marketing system in Ho Chi Minh City (Figure 2).

This conceptual framework integrates elements from the urban food marketing systems proposed by Kaynak (1986), Drakakis-Smith (2000) and Fellows (2002) with elements from the network framework to better describe what seems to be a complex system of interconnected stakeholders, evolving in a system that interacts with a more general environmental context. The conceptualised complex system of interconnected individuals and firms build up the core of the framework. The links between stakeholders in the system can be product, credit, money, information and feedback
Vietnam is happening fast and some fresh food market segments still use public retail markets and hawkers, whereas some parts of the population shop in supermarkets selling packaged produce. The place of the wholesale function in this diverse market is still uncertain as some customers such as traditional retailers and caterers may heavily depend on it, whereas others (supermarkets, speciality shops) might prefer imports or direct supply from the producer.

However, to understand the existing marketing system and the viewpoint of all its stakeholders, this paper argues that a systems approach to the analysis of urban food supply and distribution must be taken. Various elements of past research and insights from some preliminary fieldwork in Vietnam have been integrated into a holistic conceptual framework. Several important elements appear to explain the functioning of the present marketing system:

- fast economic development is rapidly changing the structure of the system of stakeholders who market food in Ho Chi Minh City;
- product technical specificity clarifies some aspects of the marketing system;
- the environmental components (domestic legal and policy factors, international trade policies and food markets, history, geography and cultural and social norms) surrounding the marketing system are potent explanatory factors in understanding the functioning of the system; and
- individual decisions of stakeholders within a complex network of collaborating and competing firms and individuals are fashioned by the relationships they have built with their counterparts to facilitate trading in an imperfect market and legal environment.

The conceptual framework thus recognises the different environmental impacts on the stakeholder interactions within the marketing system. Such a conceptual framework can be used for further research in the study of the different vegetable supply chains, and the businesses within them. It also acknowledges the impacts on the marketing system from both within it (inter-firm) and outside it (environmental impacts). In particular, the analysis of the justification for constructing modern wholesale markets demanded by city authorities is important, especially when

**Conclusions and discussion**

This study has shown that it was difficult to try to place a country and its food market structure in one of the development levels proposed by the evolutionary approach to market studies. Economic development in...
bearing in mind previous projects that have failed to benefit market stakeholders. The network effects on business-to-business relationships and supply chain performance in the different vegetable supply chains can also be studied using this framework.

One aspect of marketing systems this article has not tackled is the measure of their performance and efficiency. The generation of particular performance and efficiency indicators should be the subject of further study once the focal domain of evaluation has been chosen by the stakeholder sponsoring the research or by the independent researcher. Indeed, indicators may be specific in assessing performance for firms (Spriggs, 1994), business-to-business relationships (Reve and Stern, 1986), supply chains (Lambert and Pohlen, 2001), and/or the entire marketing system (Scarborough and Kydd, 1992).

From a managerial point of view, the conceptual framework described here can help stakeholders better understand how the vegetable market system works in a South East Asian context. State policy and city authorities could then better plan the infrastructure and institutions necessary to satisfy the demands of growing cities. Food marketing businesses (processors, distributors, exporters) could likewise better evaluate possibilities of building dedicated fresh produce supply chains in their own local context by using the conceptual framework as a key to complex marketing systems already embedded in their specific socio-cultural and historical contexts.

Notes

1 This work is part of a research project sponsored by CIRAD-MALICA (Markets and agriculture linkages for cities of Asia) and a PhD thesis supported by the French Ministry of Agriculture, CIRAD and the British Council.
2 The "Vietnam at a glance" paper is available online at www.worldbank.org
3 As reported by the French Trade Commission Network Web site: www.dree.org
4 Peri-urban agriculture is defined “as agriculture located inside and around the city for which there is an alternative in the use of resources – one agricultural and the other non-agricultural” (Mbaye and Moustier, 2000, p. 236)

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Appendix. Checklist of questions to informed stakeholders to validate the proposed conceptual framework of marketing system

Identification
Who is the interviewed informed stakeholder?
Perceived position within the marketing system.

Diagnosis
(1) Personal viewpoint of the present marketing system and the role of wholesaling within it:
• product diversity and quality;
• information flows;

(2) Personal indicators of efficiency of fresh food marketing system and wholesaling.

(3) Why and how the marketing system has evolved? Place of the wholesale activity in this evolution:
• political changes;
• consumers' cultural changes;
• economic development;
• resistance of marketing institutions/organisations to historical changes.

Prospects
Prospective view of possible future developments of the marketing system and of the wholesaling institution:
• different stakeholders' reactions to changes as perceived by informed stakeholder;
• perceived view of informed stakeholder activity within the evolving marketing system;
• perceived impacts of institutional changes on informed stakeholder activity and on marketing system in general.

Action
Stakeholders' suggestions to enhance marketing system efficiency:
• Who should intervene and how to improve the marketing system?
• Is the stakeholder ready to participate in the process? How?