

THE PARTICIPATION OF THE POOR IN FLAVOURED RICE VALUE CHAINS TO HANOI

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SUMMARY

Rice is the basic component of the Vietnamese diet, with an average consumption in the urban area of 9.75 kg/cap/month. This consumption tends to decrease and if wealthy consumers seem to be attracted by perfumed rice, their purchases are limited by a mistrust of the quality of the available products. At present, the consumption of perfumed rice in Hanoi can be roughly estimated at around 1kg/cap/month.

The fragrance of rice is linked to the variety of rice and some "land" effect. Perfumed rice from the variety Tam Xoan, produced in Hai Hau district, benefits from a good reputation among consumers. It is sold through three main chains: the supermarket/food company chain, the traditional chain and the Farmers' Association of Tam Xoan Hai Hau perfumed rice chain.

The supermarket is not a common place to buy rice (the volume of sale of rice by supermarkets is lower than that of street vendors); consumers buy rice mainly in shops. But it is in supermarkets that the share of perfumed rice is higher in the total sale of rice (70%). The supermarkets/food companies chain represents a little more than 8% of the distribution of Hai Hau rice.

Profits of the different actors vary between the three distribution chains as follows:

- In the supermarket-driven chain, food companies and supermarkets get the highest gross margin. Farmers profit of 950 VND for 300 grams of flavoured rice (corresponding to 1 kg of mixed rice sold retail), i.e. 3167/kg of flavoured rice, represents 10.92% of final price. Farmers' total profits per year ranging from

915,325 VND for poor farmers to 3,408,125 VND for larger scale farmers, which are lower than all the other actors' profits in the chain.

- In the traditional chain, farmers get higher profits than the other actors in the chain per kilo of mixed rice, with their profit representing 27% of the final price.

- The most profitable chain for farmers per kilo is the association/supermarket chain with 5442 VND/kilo of flavoured rice, or 33% of the final price; in this chain, the supermarket margin is slightly lower than in the supermarket chain (16.36%), while the final price is much higher (nearly twice).

The difficulties of selling to the supermarket chains are mainly linked to the constraints in shifting from an informal to a formal transaction (being a legal entity, drawing invoices, having the product packed and registered by the Department of Health), in addition to the problem of processing skills which impact product quality. Supporting the involvement of the poor in supplying supermarkets should deal with these issues. The farmer's association is a good path in this direction. Likewise, professional organization of traders (collectors, wholesalers) could support the adaptation of these actors to the necessary changes.

INTRODUCTION

A. Changes in the distribution chains for agricultural products in Vietnam

The distribution chains in Vietnam have changed deeply during the last decades. During the planned economy period, before 1986, there were three main distribution chains in Vietnam:

- State-run distribution chains: The products of co-op farmers were collected, processed and distributed by State-owned companies.
- Co-op-run distribution chains: farm products were distributed to co-op members by Co-ops.
- Informal distribution chains: in these illegal chains farm products were sold to private traders who transported them to urban markets for sale.

When the economic reform, known as Doi Moi, was implemented in 1986, State-owned distribution chains started to decrease in number and dimension, while co-op distribution chains disappeared and private traders' chains developed strongly. Nowadays, open air markets, street markets and shops are operated and supplied by a number of small traders, themselves provisioned by independent farmers. More recently, during the last 10 years, supermarkets have been opened in the nation's major cities.

B. Competition between supermarkets and traditional chains

Supermarket development can create new opportunities for the economic sector. But this development also raises many questions (Reardon and Berdégue, 2002; Reardon and Swinnen, 2004). From the experience of other countries it appears that the development of supermarkets intensifies competition in the trading sector: this can benefit consumers, but can also affect the lives of many households whose income depends on marketing activities. This development can also affect farmers: supermarkets can increase the importation of goods and competition for the local products.

But the biggest concern is that selling to super-

markets requires technical and organizational innovations from producers and traders, supermarkets have high requirements in terms of amount and regularity of supply, quality, packaging and certification. Moreover, selling to supermarkets requires formal transaction with VAT bills. Small-scale farmers and traders have difficulties in adopting these innovations and are often excluded from the supermarket-driven distribution chains.

C. Implication in terms of research

Our overall objective is to check if all these problems mentioned above are likely to occur, or have already occurred in Vietnam.

In order to contribute to poverty alleviation, and to "make markets work better for the poor," the present case study on the perfumed rice chain aims at comparing the possibility and condition of the integration of the poor, as traders and producers, in the traditional chain and the supermarket chain. Since 2003, the VASI-DSA has been involved in a project which aims at developing an alternative chain of distribution, involving supermarkets and other outlets, where producers are organized in an association (the Farmers' Association with 437 members). The project aims at supporting, through the Association, the adoption by poor producers of the technical and organizational innovations needed to supply supermarkets. In terms of organization, this project focuses on a model of horizontal and vertical forms of coordination which enable poor producers to increase their bargaining power in the distribution chain. The involvement of VASI-DSA in this project follows previous research activities conducted in cooperation with CIRAD-Ecopol, which conducted stakeholders' workshops and identified the tracability of flavored rice as a key condition for increased farmers' incomes (Jesus and al, 2001).

The comparison of the supermarket/food company chain with the association chain will illuminate possible actions to promote increased and fair participation of the poor in the distribution value chain.

The comparison focuses on the follow items:

- Conditions for participation in the chains (capital, technology, social networks, etc.),
- Share of added value and economic risk,
- Share in decision process,
- Job opportunities,
- Efficiency in terms of quality management.

RESEARCH METHOD

A. Selection of the case study

The choice of the variety of Tam Xoan rice, produced in the district of Hai Hau (Nam Dinh Province), as a case study for integration of the poor in distribution value chains is justified on the following grounds:

Place	Type of actors	Number of actors surveyed
Hanoi (Dong Da and Hai Ba Trung Dist)	Consumers	35
Hanoi (Dong Da and Hai Ba Trung Dist)	Stalls	10
Hanoi (Dong Da and Hai Ba Trung Dist)	Shops	10
Hanoi (Dong Da and Hai Ba Trung Dist)	Street vendors	10
Hanoi (Dong Da and Hai Ba Trung Dist)	Hanoi wholesalers	6
Hanoi (Dong Da and Hai Ba Trung Dist)	Food companies	3
Hanoi (Dong Da and Hai Ba Trung Dist)	Supermarkets	19 (rapid) 5 (in depth)
Hai Hau (Hai Phong and Hai Toan)	Local wholesalers	20
Hai Hau (Hai Phong and Hai Toan)	Collectors	13
Hai Hau (Hai phong and Hai Toan)	Tam xoan Hai Hau rice producer	44

Table 172-
Sample size

- Poor producers are involved in this production,
- This rice is distributed under three distribution chains, two of them involving supermarkets,
- Some information on this sector has already been collected by VASI.

We have limited our study to:

- One specific product and one specific area of production: the variety of fragrant rice produced in the district of Hai Hau in Nam Dinh province. For the producers study, we focus on two communes of Hai Hau: Hai Phong and Hai Toan, where the Farmers' Association is operating, gathering rice growers of the variety Tam Xoan in Hau Hau.
- One consumption area: the Dong Da and Hai Ba Trung districts in Hanoi, where it is relatively common to find Tam Xoan Hai Hau rice in different outlets.

B. Research steps

The research study is based on surveys carried out among the different actors of the perfumed rice distribution chain (see table 172).

The study was conducted in four steps:

Step 01. Inventory of the selling points of rice in Hanoi (Dong Da and Hai Ba Trung districts)

In the two selected districts, Dong Da and Hai Ba Trung, an inventory of the different selling points of rice (stall markets, street vendors, shops, supermarkets) has been conducted. For each selling point, data has been collected on type of rice sold, price, quantity sold, type of consumers and suppliers, number and salary of employees, origin and economic

status of sellers, and capital.

The case of perfumed rice is studied in more detail, with special attention paid to the Tam Xoan rice of Hai Hau, and then to the Tam Xoan rice of Hai Hau produced by the Farmers' Association.

Step 02: Identification of the distribution chains of Tam Xoan Hai Hau rice in Dong Da and Hai Ba Trung district.

In this second step and the following ones, we focus on one kind of rice, Tam Xoan Hai Hau rice, considering the rice produced in the framework of the Association and that produced outside. In order to identify the distribution chains of this rice we conduct cascade interviews from retail outlets in Dong Da and Hai Ba Trung districts, to agents collecting rice from the farms in two communes of Hai Hau: Hai Phong and Hai Toan, which specialize in Tam Xoan rice production. This allows us to draw the different chains that distribute Tam Xoan Hai Hau rice from Hai Hau to Dong Da and Hai Ba Trung districts.

For each identified chain, we collect data on the actors involved (function, numbers, capital, economic status), on the process of adding value along the chain, and on the organization, in particular in terms of coordination and quality management.

Step 03: Identification of Tam Xoan rice producers in two communes of Hai Hau: Hai Phong and Hai Toan

In the list of the suppliers of the local agents studied in Step 02, we randomly selected 44 farmers of Tam Xoan rice. For each farmer, we collect data on capital, labor force, economic status, production, costs and profits.

Step 04: Analyzing and summarizing reports

The synthesis of the data collected during the three steps enables us to draw a clear description of the distribution chains of Tam Xoan Hai Hau rice to Hanoi and to compare these chains in terms of the involvement of the poor.

We have to underline that one of the difficulties in studying the Hai Hau rice distribution chains is related to the widespread practice of mixing rices and cheating on the origin of the product: the Hai Hau rice benefits from a good

reputation and it seems that large quantities of rice originating from areas other than Hai Hau are sold under the name of "Hai Hau perfumed rice." It is then difficult to assess with accuracy the real quantities of Hai Hau perfumed rice passing through the different distribution chains.

The investigation was carried out under the supervision of Dr. Vu Trong Binh (VASI-ASD), in December 2004 and January 2005, the time of rice harvest.

RESULTS

A. Consumers of rice and perfumed rice

Rice is a major component of the Vietnamese diet, with an average consumption of 9.75 kg/cap/month in urban areas (see appendix 1). But this consumption has been slightly decreasing in the last years (it amounted to 9.83 kg/cap/month in 1998) with the increasing living standards of the population, leading to a more diversified diet (Tuyen et al, 2004). At the same time there has been an increase in the demand for high quality and perfumed rice in big cities such as Hanoi and Ho Chi Minh City. The common varieties of rice are Tap Giao, Q5 and Khang Dan. High-quality varieties are for example Bac Thom (fragrant and glutinous rice) and Du Huong (fragrant rice). The variety of perfumed rice, Tam Xoan, cultivated in the district of Hai Hau, in Nam Dinh province, has long been famous nationwide for its typical and special quality.

Consumers can purchase rice in many different outlets: supermarkets, markets stalls, street vendors and shops, at different prices (see table 173).

Hai Hau perfumed rice is sold with very different prices. These differences are linked to the efficiency of the distribution chains as we will see below but also to the quality of the product: it is estimated that Hai Hau rice supplied by the Association of Hai Hau producers is the only pure perfumed rice available in the market. In the other cases, a mixture is sold.

Regarding the results of one survey in a retail shop (see table 174, we can roughly assess that perfumed rice represents 10% of the rice marketed in volume (so less than 1kg/cap/month in average).

According to this same survey, the consump-

VND/kg	Supermarkets	Stalls and shops	Street vendors
Normal rice (Tap Giao)*	Not available	4,100	4,200
Tam Xoan Hai Hau perfumed rice**	8,500	7,167	6,750
Other perfumed rice (Mai Huong)**	6,500	5,500	5,850
Tam Xoan Hai Hau with the label of the Farmers' Association*	16,500	15,000	

*our survey and VASI - DSA 2004

** price collected in Hanoi in November 2004 from An, 2005 and our survey

Table 173- Price of different kinds of rice in different outlets in Hanoi

tion of perfumed rice used to be higher: the present sale of perfumed rice in retail shops equals just 30-50% of that of five years ago, except for special occasions such as the Tet holiday. The reason for this decrease is a reduction of quality and consumer trust (see below).

From the same survey (table 3), we can roughly assess that 20% of rice consumers buy perfumed rice. The number of customers is in fact very seasonal and we have to

consider two types of perfumed rice consumers:

- Regular consumers: They are high-income people including state employees, businessmen, large restaurants and hotels.
 - Occasional consumers. Having a lower income, they only buy perfumed rice for special events such as the Tet holiday or family festivals.
- Poor consumers are little involved in perfumed rice consumption .

Criteria	Unit	Quantity
Consumption of rice in urban areas*	Kg/month/capita	9.75
Sale of perfumed rice/sale of rice **	%	10
Number of regular customers of perfumed rice / number of rice customers**	%	20
% of regular customers of perfumed rice who mix perfumed and non -perfumed rice **	%	70

Source:

*GSO survey, consumption in 2002

** VASI consumers survey in one shop of Hai Ba Trung district, December 2004 (35 consumers)

Table 174- Assessment of perfumed rice consumption

Consumers tend to mix perfumed rice with ordinary rice (70% of consumers; see table 3), because of the high price of perfumed rice. But this mixing can also be explained for technical reasons: the perfumed rice is now drier and harder than it used to be, so it needs to be mixed with other rices which are more glutinous. So a very limited number of consumers use pure perfumed rice. The mixing ratio may be from 30 to 70% perfumed rice, generally mixed with Bac Huong rice.

Consumers are not the only ones to mix perfumed and non-perfumed rices. This practice is increasingly common from big local agents to final sellers.

This practice as mentioned above leads to mistrust by consumers, but consumers have

other reasons to complain about the quality and reliability of perfumed rice:

- The perfumed rices are often covered with perfumed leaves to increase the green color and the perfume. Therefore, rice is usually greener and can be preserved for less time.
- Traders are said to often cheat on the origin of perfumed rice: wholesalers in Hanoi are known to purchase perfumed rice from Thai Binh and Ninh Binh, and to sell it under the name of Hai Hau perfumed rice, which benefits from a greater reputation.

B. Retailers of Hai Hau perfumed rice

In the two districts of our survey, rice outlets constitute a dense network, especially in the densely populated areas (see map 15):

- Nguyen Cong Tru area, Le Van Huu Street, Vinh Tuy market, Mo market and Nguyen Cao market in Hai Ba Trung District.
- Kham Thien lane market, Kim Lien area, Van Chuong market and some other streets such as Luong Su, Ngo Si Lien, Phuong Mai and Trung Tu in Dong Da District.

We can consider four types of rice retailers: supermarkets, stalls in markets, shops and street vendors (see table 175).

For each one of these retailers we present: the

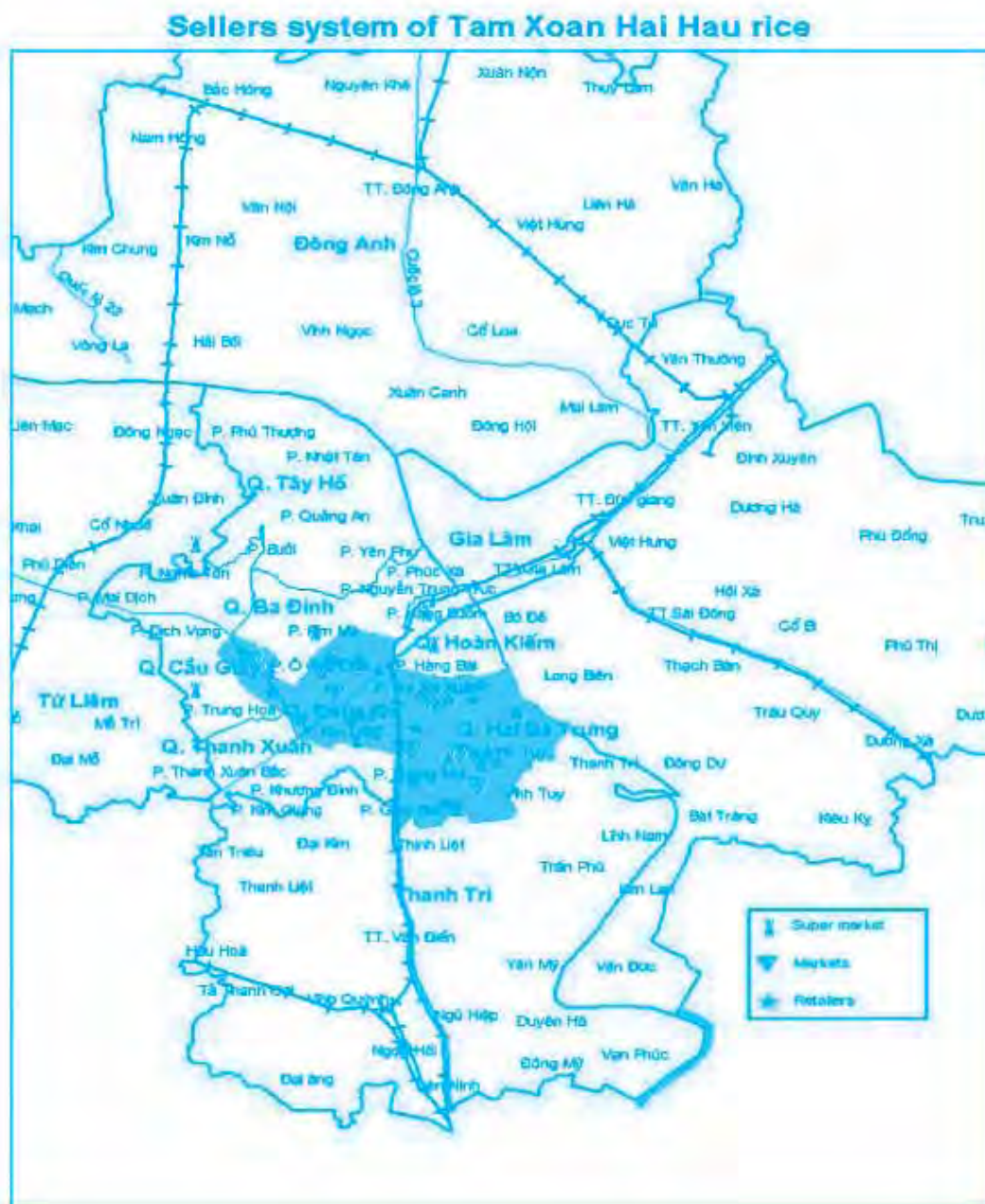
number in the area of our survey, the share of Hai Hau perfumed rice in the sale of the outlet, the scale of activity, the socio-economic profile of the owner, the capital needed to conduct this activity and job creation.

Table 175-
Retailers of
rice and
perfumed rice
in Dong Da
and Hai BA
Trung districts

	Supermarkets	Market stalls	Shops	Street vendors
Total number in the two districts	19	111	135	Around 30
Size of our sample	5	10	10	10
Quantity of rice sold by month by outlet (tons/month)	1.5 - 3.5	3.65 - 5.60	4.5 - 7.6	2.5 - 4.5
% of this kind of outlet selling perfumed rice	70%	85%	85%	25-30%
Share of perfumed rice in the total sale of rice of the outlet (%)	>70%	10-15%	10-13%	5-10%
Share of Hai Hau perfumed rice in the total sale of rice of the outlet (%)	10-20% (250-350 kg/month)	?	?	?
Capital for rice trading by outlet (operational fund) (million VND)		6.3 - 12.5	5.6 - 15	1-1.2
Number of employed persons by outlets		1.1 - 1.2	1-3.1	

Source: December 2004 survey data - VASI/MALICA/MMWB4P (For more details see appendix 2).

Map 15. Tam Xoan Hai Hau rice retail network in Dong Da and Hai Ba Trung District (Hanoi)



1. The supermarkets

The number of supermarkets has quickly increased between 1990 and 2004. Based on the definition used by the Department of Trade before 2004, there were no supermarket in 1990, and 55 in 2004, in Hanoi. Based on the official definition adopted in June 2004 by Vietnamese authorities, there are 24 supermarkets today. They first set up in the city center and then expanded to the less-central districts. Supermarkets are diversified relative to forms of ownership: joint-stock companies, privately owned companies, foreign-invested companies, etc. (see Part I)

i. Characteristics of supermarkets in the districts of the survey

In the districts of our survey, there are 19 supermarkets (according to the definition used before 2004). Each one sells around 2 tons of rice per month (less than a street vendor). 70% of them sell perfumed rice, from five to 10 different types. These supermarkets can be classified as follows:

- Type 1: Supermarkets offering a high number of types of perfumed rices, with a large quantity displayed. Ex: Hanoi Supermarket (Hai Ba Trung), Fivimart (Hao Nam – VND Da), Seiyu (Pham Ngoc Thach – VND Da), Family Mart (Lac Trung – Hai Ba Trung). They sell 2 to 3.5 tonnes/month and 7-10 types of rice.
- Type 2: Supermarkets selling small quantity and choice of products. Ex: Kim Lien Supermarket, Star Bowl, and Marko. (1.5 - 2 tons/month and 5-7 types of rice).

ii. Kinds of rice sold in supermarkets

Apart from normal rice, there are mainly three kinds of special rices sold in supermarkets:

- Domestic perfumed rices: including perfumed rices such as Hai Hau, Xuan Dai, Dien Bien, Bac Thom, Mai Huong, Northern special rice, Nang Thom, mountainous special rice, etc. These are sold in large quantities in supermarkets, making up about 70% of total rice sales.
- Unpolished rice and sticky rice, which are not so regularly and popularly consumed. They are sold in limited quantity by supermarkets (around 10% of total rice sales).
- Foreign rice such as Japanese rice, Thai rice, Korean rice, etc. They are imported or grown in Vietnam using foreign seeds. The supermarkets that sell them most are Seyu and

Family Mart (Lac Trung – Hai Ba Trung).

Rice sold in supermarkets is well-packed with clear name, trademarks, and some information on quality. The mention of origin is quite limited (name of the area of production, but no clear indication about the producers). The use-by date, which is important for rice, is rarely mentioned. According to rice trading professionals, the perfumed rice in supermarkets is only about 30 – 40% pure perfumed rice, mixed with sticky rice, Khang Dan rice, etc

iii. Hai Hau rice sold in supermarkets

Hai Hau perfumed rice makes up 10 to 20% of total rice sales in supermarkets: big supermarkets can sell 350kg/month and small ones can sell 250kg/month on average (see more details in appendix 2). The quantity of perfumed rice sold depends on time, with a maximum during traditional feasts such as Tet. Hai Hau perfumed rice sold in supermarkets is packed in thick nylon bags of 2 kg and 5 kg. The package clearly indicates the type of rice, the rate of broken rice, and some other criteria such as the rate of pure rice, the moisture, the name of the supplier, and the registration number, but there is no use-by-date.

2. Market Stalls

Stalls are “official”/registered regular outlets, located in official markets (markets with a management board). Rice is sold in every open market. In Dong Da District, there are now 10 markets, with a total of 64 rice stalls. Rice stalls are particularly numerous in Kham Thien and Van Chuong markets. The number of rice stalls is 47 in Hai Ba Trung District, spread over nine markets. These stalls differ in size, selling from 3.6 to 5.6 tons of rice per month. Most of them sell perfumed rice (85%), of different types, which accounts for 10-15% of their rice sales. Vendors in market stalls have to rent their stalls and pay market tax. To do so, they need to be registered in Hanoi as regular inhabitants (Ho khau). The business of rice is the main activity of their household. The capital needed for trading rice in a stall is around 6.3 to 12.5 million VND, creating around 1.1 to 1.2 jobs per outlet.

3. Rice shops

Shops can be defined as outlets with concrete

walls, opening to the street. These are the main rice retailers. In Dong Da there are about 60 shops selling rice. They are located in streets such as Phuong Mai and Trung Tu or residential quarters such as Van Chuong and Hao Nam. In Hai Ba Trung District, there are about 75 shops along streets and residential quarters. Most of these shops sell other products such as dry food, vegetables, etc. Only 20% of these shops specialize in rice trading. They offer a large diversity of rice (around 10 different types) including high-quality rice. Most of them (85%) sell perfumed rice (see appendix). Perfumed rice represents around 15% of the sale of rice in the shops.

Most retailers selling rice in shops are middle-income households. It is estimated that about 60% of the households are of the middle-income class, with a monthly income of about 3-5 million VND. The remaining 40% are of the lower-middle-income class with a monthly income of about 2-3 million VND for 2-4 member households. Retail shops usually have relatively low capital investment with a quick return. In order to open a rice retail shop, a household needs from 5 to 10 million VND. Those who are not owners (55% of the sellers) have to pay for shop rental. Taxes are around 30-50,000 VND/month. Due to the importance of fixed costs, shop traders are the most vulnerable traders.

4. Rice Street Vendors

Street vendors are those who do not have stable selling places. There are about 15 street rice vendors in each district. They offer three or four types of rice. Only 20–30% of them sell perfumed rice, representing 5 to 10% of their total sale. The major cause of this low percentage is that they mainly serve customers with low income, who consume low-priced rice. Volume of fragrant rice distributed by street traders is very low (around 960 kg/month).

Street vendors in Hanoi mainly come from neighboring provinces such as Nam Dinh, Thai Binh, Phu Xuyen (Ha Tay), Ha Nam, Ha Bac, etc. They are mainly farmers or rural workers; street vending constitutes for them a complementary income during the period of under-employment in the rural area. As a result of rapid urbanization, many farmers have seen their cultivation land reduced. In order to maximize profit on the remaining crop area, many farmers try to sell their products themselves. Therefore, some of them even collect

rice in their area and peddle it in Hanoi markets. Other street vendors buy rice from wholesalers in Hanoi, whom they have to pay in cash. They deliver it by bicycles in small streets, residential or student areas or sometimes they just sit near wet markets. They can also make home deliveries. Under an unwritten agreement among vendors, each one has its specific distribution area.

Street vendors generally store the quantity needed for two or three days. Therefore, they are quite safe from price changes. Their operational costs are small because they use bicycles or other simple means of transport.

C. The Organisation Of Rice Commodity Chains

1. Mapping rice commodity chains

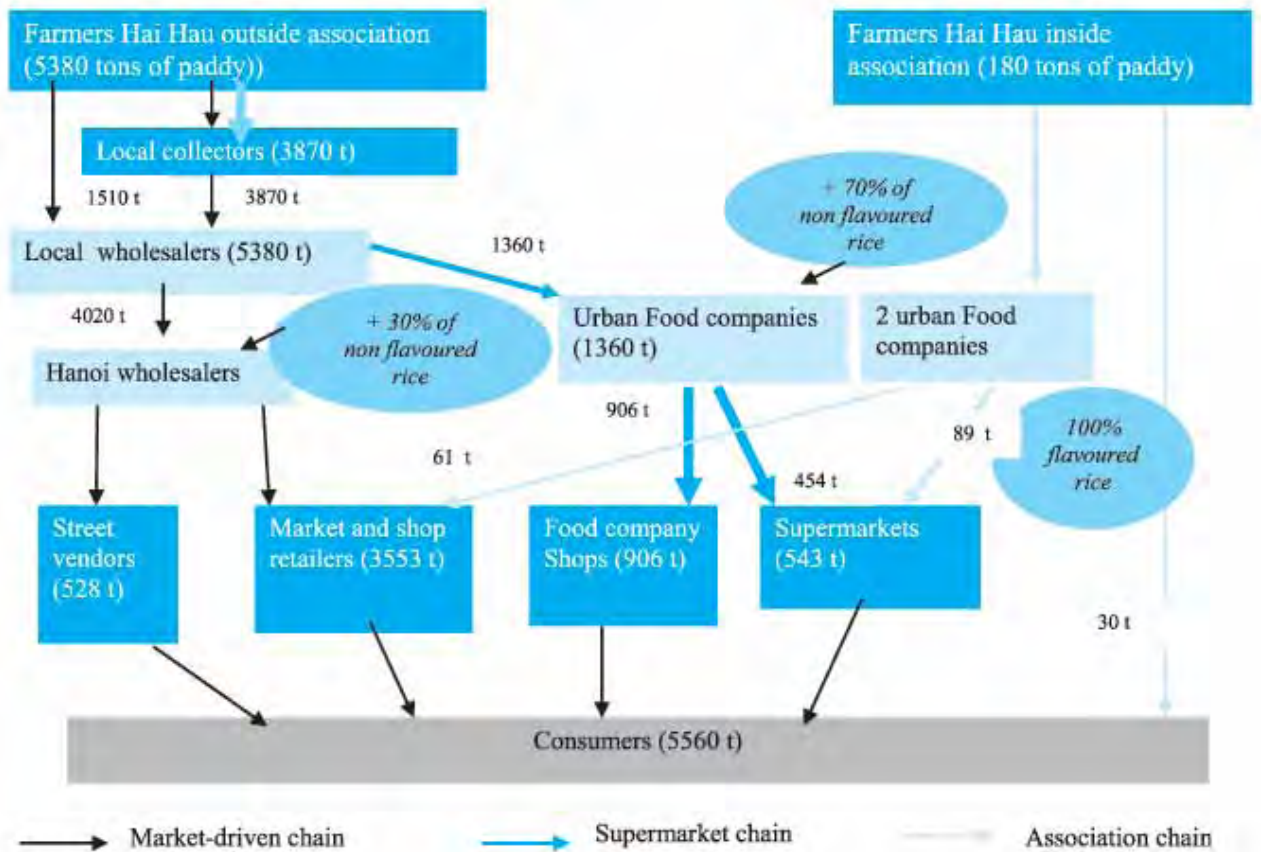
The inventory of the suppliers of the outlets presented above leads us to identify three main chains of distribution for Hai Hau perfumed rice (see figure 47):

- **The traditional chain involving numerous collectors and individual distributors:** this is the main chain supplying market stalls, shops and street vendors. This system involves a large number of individual traders, collectors and private agents. Purchasing arrangements do not rely on formal contracts but on family and friend relationships. This accounts for the distribution of around 75% of Hai Hau perfumed rice.

- **Food companies and supermarkets chain:** in this chain food companies supply supermarkets. The actors involved are all individual legal entities. The sale through food companies and supermarkets accounts for the distribution of around 8% of Hai Hau perfumed rice. Food companies also sell Hai Hau rice through their own retail points, the food companies' shops, which distribute 16% of Hai Hau rice.

- **The new marketing chains set up by the Farmers' Association.** This chain distributes Tam Xoan Hai Hau rice produced by the 437 producers members of the Association, mainly to supermarkets but also to some traditional outlets. It accounts for the distribution of around 3% of Hai Hau perfumed rice. Two food companies distribute 83% of the production of the Farmers' Association; 17% is sold directly to consumers.

Figure 47-
The Hai Hau
rice commod-
ity chain in
2004-2005



Source: Vasi-DSA/MALICA/MMWB4P survey, 2004

Note: for the data on Hai Hau paddy production outside the association, we took the 2002 data available from the Hai Hau district statistics division (3.6 t/ha multiplied by 1490 ha). The production may be lower in 2004-2005 as the trend is of declining area and yield because of marketing problems. The data on association production is given by the association for the 2004-2005 crop. The other data originates from the traders' survey (percentages of rice quantities going to the different types of buyers).

Shops and market stalls represent 64% of the retail sale of Hai Hau rice, while food company shops represent 16%, supermarkets 10%, street vendors 9%, and direct sale by the association 1%.

The three commodity chains will be described one by one, presenting for each chain the actors involved (number of this kind of actors in the chain, share of Hai Hau perfumed rice in the sale of the actor, scale of activity, socio-economic profile of the actors, capital needed to conduct this activity and job creation). Then we analyze the mechanisms of coordination inside the chain. The annual production of paddy in Hai Hau is approximately 150 000 tons, of which 5380 tons is perfumed rice. The scale of agents involved in the different chains is presented in table 5.

2. The traditional chain

The traditional chain is the chain that involves the biggest number of actors and deals with

the highest share of the production (75%). Distributors are diversified and include big traders, private firms, state-owned firms, small-scale retailers and also farmers. Retailers are stalls (in open markets) or shop owners, and street vendors.

Traders involved in this distribution chain are:

- Wholesalers located in Hanoi. They are the intermediaries between local collectors in Hai Hau and Hanoi retailers (shops, stalls, street vendors). They generally market diversified products in big volume. Most are involved in processing operations.
- Local wholesalers and collectors in Hai Hau.

2.1. Wholesalers in Hanoi

There are nine wholesalers in Hai Ba Trung District, located along the main streets such as Truong Dinh, Vinh Tuy, Minh Khai, Kim Nguu and Tran Khat Tran. There are five in Dong Da, mainly located in Lang Street.

Table 176 - Characteristics of the traders of Hai Hau

	Food companies	Wholesalers in the two districts of Hanoi	Local wholesalers in Hai Hau	Collectors In Hai Hau
Total number of traders supplying Hai Hau rice in the area of survey	7	14	40	2501
Size of our sample	3	6	20	13
Quantity of rice sold per trader (tons/month)		33.5 -100	19.4	
Share of perfumed rice in the total sale of rice of the traders (%)		43% (for high quality rice)	25	
Quantity of Hai Hau rice sold per trader (tons/month)	255	35		
Share of Hai Hau perfumed rice in the total sale of rice of the traders (%)		5.5	74	
Running capital for rice trading (million VND)		212	120-185	2.5-30

These Hanoi wholesalers do not only supply rice although rice is their major product. Regarding rice they commercialize common rice and high-quality rice, which makes up 43.3% of their sale of rice. On average, each wholesaler sells around 35 tons per month of Hai Hau rice, which equals 5.5% of total rice sold (see table 176).

Most of these Hanoi wholesalers are also involved in processing activities (cleaning, polishing, etc.) They also play an important role in diffusing information about price, quality of products from different production areas and policy. But they also contribute to the lack of transparency of the chain by their practices: they mix products (perfumed and non perfumed rice) and use the name of Hai Hau rice to sell other kinds of rice collected in other areas such as Thai Binh, Ninh Binh.

Hanoi wholesalers are from rich families, who settled in Hanoi many generations ago. The capital needed for such activity is around 212 million VND on average.

There are on average 4.5 workers by wholesalers. These workers are mostly involved in processing activities. Their income is on average 792,000 VND/month, which is relatively high. Most of these workers are poor non-resident workers coming from other provinces.

2.2. Local traders of perfumed rice in Hai Hau: wholesalers and collectors

Hanoi wholesalers are supplied with Hai Hau rice by local traders based in Hai Hau District. These local traders (local wholesalers and collectors) are present in all the communes of Hai Hau district but are highly concentrated in the south of the district such as Hai Duong, Hai Anh, Hai Toan, Hai An, Hai Phong, etc. Among these local traders we have two

categories: collectors and wholesalers. Collectors buy rice directly from producers and sell it to wholesalers.

i. Local wholesalers

There are about 40 rice wholesalers in Hai Hau, of which 35 are collectors and processors. They generally collect both perfumed and non-perfumed rice. Those involved in rice processing supply markets with paddy, husked rice, scratched rice (50% processed), white rice, etc. Each wholesaler sets up a system of collectors in communes with an average number of nearly 10 collectors/wholesalers. Wholesalers and collectors choose the area to buy rice according to three main criteria: up to 67% of wholesalers decide the area to purchase based on rice quality; 39% of wholesalers based on local acquaintances and 28% based on transport conditions.

These wholesalers do not only supply Hanoi but also other Northern provinces such as Hai Phong, Quang Ninh, etc and mountainous provinces such as Son La, Yen Bai, Cao Bang, etc.

Local wholesalers are large business units as their annual transaction volume is up to 232.4 tons (19.4 tons/month). In our sample, 40% of the wholesalers are better-off households with an income per wholesaler of 3-7 million VND per month. Each wholesaler has 2.5 employees on average. All employees are farmers. It is unlikely that the poor households can become wholesalers because of their limited capital and insufficient infrastructure, but they can be employed by the local wholesalers.

ii. *Local collectors*

There are two types of local collectors:

- Professional collectors. They work all year round, and collecting rice is their major activity and major source of income.
- Seasonal collectors. They are middle-income households. They usually buy unhusked rice from other households and then sell it when the price increases.

Ten professional and three seasonal collectors were interviewed. The requirements to conduct this activity in terms of financial capital, knowledge/know-how, and social capital (relationships) are summarized in table 177.

At present in Hai Hau district, 100% of seasonal collectors are well-off households. They have financial capital and a good network of relationships among large rice wholesalers within the district. The professional collectors

have more diversified economic profiles, but they all have a long-term experience in rice production or trading of perfumed rice (80% of them have more than 10 years experience). One characteristic of these local wholesalers and collectors is the importance of seasonal employment: after harvest or during Tet holiday (where consumer demand is high), the number of employees of each wholesaler may increase to 5-10 people. The average income of these workers is, in accordance with the local labor market price of the area, around 15,000 - 20,000 VND/day.

3. The supermarkets and food companies chain

The supermarket/food company chain involves food companies as important actors in terms of decision power. This chain deals with 8% of the production of Hai Hau rice.

Table 177 - Requirement for collecting activity

Conditions	Professional collector	Seasonal collector
Running capital (VND million)	2-5	20-30
Social capital	Network of producers and wholesalers	Local network (neighborhood) of producers Relation with wholesalers and professional collectors
Know-how	Knowledge of production areas. Ability to assess rice quality	Ability to assess rice quality

Source: VASI survey/MALICA/MMWB4P, 2004

Food companies

The main suppliers of rice and perfumed rice to supermarkets are companies with legal status, such as food companies, joint stock companies, Ltd. Co. etc. These companies only sell one third of the perfumed rice that they collect to supermarkets (figure 1), the two other third is sold through retailing shops belonging to these companies. There are seven companies (Yamada Ltd. Co, Northern food Company, Green World Company, Ho Chi Minh City Food Company, Long An Food Company, Vinh Ha Ltd. Co., Bao Minh Co.) supplying supermarkets with Hai Hau rice from the two districts and other types of rice. Each company employs from 50 to 100 regular workers, who mainly come from neighboring provinces and earn 500-800,000 VND per month.

Organisation and requirements to participate to the supermarkets/ food companies chain

There are some specific requirements to sell in this chain:

- Products should come from known locations; suppliers should have legal status or at least be legally certified.
- Products must be packed.
- Products must have a certificate of quality delivered by the Ministry of Health
- Supermarkets suppliers have to change products which have exceeded their use-by date or with damages packing during transportation.
- Contracts link the actors of this chain, mentioning the delay for the payment (generally monthly).
- In this chain payment by VAT invoices or bank transfer prevails.

4. The Farmers' Association chain

The Farmers' Association chain refers to the distribution chain that markets perfumed rice from Hai Hau District produced by the members of the Association (see figure 48).

The actors of the Farmers' Association chain

i. The Farmers' Association

In 2003, the Farmers' Association for Hai Hau perfumed rice has been created with the support of the Vietnam Agriculture Science Institute. Members are producers of perfumed rice of the variety Tam Xoan and

are located in Hai Hau district. Members' farms have to be based on family work. There are 437 members.

In the 2004-2005 season, the Association members cultivated an area of 54 ha of perfumed rice producing 120 tons of rice (equal to 180 tons of paddy, about 3.3% of the total production of Hai Hau perfumed rice).

There is one Association committee of 20 people, of whom 15 are farmers. Producers are linked by annual contract to the Association. This contract mentions the area of production of the farmer and his commitment to sell the rice from this area through the Association.

The Association brings support in the organization of the production: seeds, fertilizers and pesticides are supplied to farmers by the

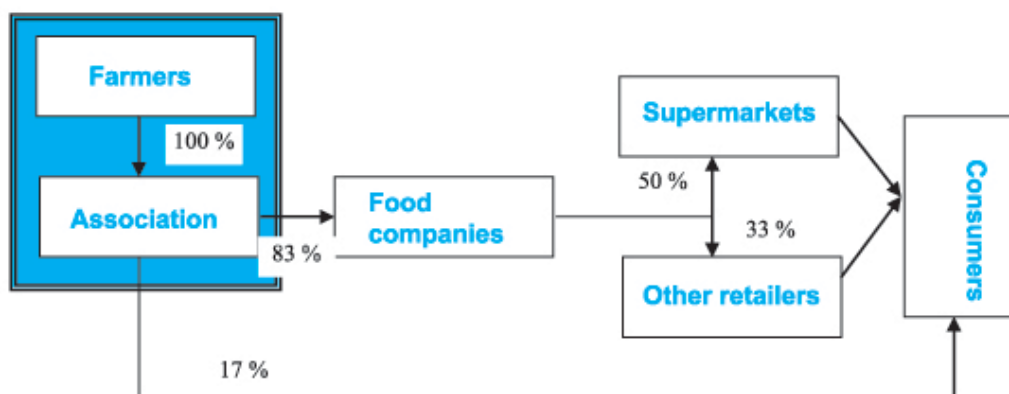


Figure 48- Rice distribution chain of the Farmers' Association

ciation and are to be paid after the harvest. In this way, all the members can borrow 100% of their inputs, regardless of their repayment ability.

The Association is also responsible for processing and marketing the production of the members, which is done through two trading companies. The Association negotiates the price with these companies. Rice is packed under the brand name of the Association.

ii. The food companies

The Association has signed a supply contract with the two food trading companies Long Co and Yamada. The trading companies are responsible for distribution but their responsibilities also include receiving information from retail sellers, supermarkets and consumers and forwarding it to the Association. Their name and address are mentioned on the rice package. The trading companies are also

responsible for transportation and storage costs.

iii. Retail sellers and supermarkets

Through the trading companies, the Association supplies 16 supermarkets (30% of Hanoi supermarkets) and 20 shops (see table 7) in seven of the nine inner districts of Hanoi (except for Long Bien and Hoang Mai). This distribution system guarantees accessibility for consumers.

Organisation and requirement to participate in the Association chain

The Association and the trading companies (Long Co Limited Company and Yamada Limited Company) have signed an exclusive three-year contract that specifies the responsibilities of each party. The contract is based on the sale of 100 tons of perfumed rice by year (83% of the production in 2004). Their

common responsibility is to build up a stable and sustainable distribution chain (production, processing and distribution). They share the objective of quality and promotion of the product. All the matters relating to price, packing style and quality are openly agreed upon by both parties.

Farmers and processors share risks and profit as follows: the profit after sale is distributed to farmers (62%), processors (24.8%), the management board of the Association (10%),

and the remaining 3.2% supplies a risk and development fund.

Regarding quality management along the chain, the production is controlled by a quality monitoring system that focuses on the following points:

- Geographic area. Cultivated land of the Association's members must be in the ecologically designated areas for perfumed rice in terms of soil, weather, irrigation, etc.

Table 178-
Number of
supermarkets
and shops
selling the
Association's
Tam Xoan rice

Criteria	Unit	Quantity
Number of supermarkets selling the Association's rice	Number	16
Average quantity of rice from the Association sold/supermarket	Kg/ month	200 - 280
Number of shops currently selling the Association's rice	Shop	20
Average quantity of rice from the Association sold/retail seller	Kg/ month	200

Source: 2005 survey data - VASI/MALICA/MMWB4P

- Rice variety. All the members produce the same variety of perfumed rice, Tam Xoan, and must comply with the same production procedures based on traditional practices such as use of manure, harvesting when rice is 80% ripe, etc.

All the products of the Association must be vacuum packed in the same packing style and with its trademark before being sold.

The Association warrants the original quality of the products, related to the phases of production and processing. But the trading companies are responsible for quality management related to the operations of transport and storage.

D. Producers of Hai Hau rice

Perfumed rice production characteristics in Hai Hau district

Hai Hau is a district in Nam Dinh province, in the Red River Delta, with a strong economy and mostly dependent on agriculture. The major source of income is agriculture, which occupies, in 2003, 67% of the area of the district (out of a total of 23,016 hectares).

In this district, the production of perfumed rice reached a peak in 1995-1999. Due to the low profit that farmers get from this production, the production area decreased and numerous

perfumed rice varieties have been replaced by a small number of high-yield varieties such as Bac Huong, a Chinese variety. In 2002, the area with perfumed rice made up 14% of the total cultivation areas for the winter-spring crop, concentrated in some communes in the south of the districts such as Hai Toan (60% of the rice area), Hai Phong commune (27%) and Hai An. The annual production of Hai Hau perfumed rice is 5,380 tons of paddy. Supermarket and traditional market channels have the same initial suppliers of Hai Hau rice: the producers of the district of Hai Hau. But in the Association channel, the suppliers are the members of the Association.

Our study will focus in Hai Toan and Hai Phong, where 100% of the farms cultivate fragrant rice. There are around 2600 Hai Hau rice producers. Our sample includes:

- 20 farmers members of the Association
- 24 non-members of whom four produce perfumed rice only for self-consumption.

We identified three types of perfumed rice producers in our sample (see table 181):

- Farms specializing in fragrant rice production. They produce and sell a large volume of fragrant rice and fragrant rice represents more than the third of their income

source.

- Farms involved in diversified production. They cultivate crops other than rice, and

rice other than fragrant rice, such as Bac Thom variety. The production is used for sale and self-consumption.

No.	Indicator	Specialized farmers	Diversified farmers	Part-time farmers
Labour and land				
1	Total persons /household	4.5	4.3	3.9
2	Total labour/household (Person)	2.6	2.3	2.2
3	Area of cultivated land (m2) (owned and rented areas)	4,167	2,614	1,915
4	Rented areas (m2)	858	693	-
5	Area of fragrant rice (m2)	3,800	936	250
Technical -economic results				
1	Volume of rice sold (kg/household)	1,267	250	-
2	Total income (VND/household)	7,461,790	8,380,477	20,577,089
3	Share of income from sale of fragrant rice (%)	38.50	6.36	-

Table 179- Characteristics of the different types of Hai Hau rice producers

Source: VASI survey/MALICA/MMWB4P, 2004

Participation of the poor in Hai Hau rice production

According to the local authorities, we may consider as poor a farm with around two or three sao (one sao= 360m2) and a monthly per-capita income of 50,000 to 80,000. In comparison rich farms have around five to twelve sao, and a monthly per-capita income

of more than 180,000 VND. Based on the declaration of the local authorities, there are 15% poor households in the two communes. Nearly all the producers (93%) are involved in Hai Hau rice production, poor and rich. But poor producers are less specialized (see table 180).

	Poor	medium	Rich	All levels
Diversified farms	75%	66%	58%	65%
Specialized farms	25%	34%	42%	35%
All types	13%	54%	34%	100%

Table 180- Socio economic level and type of farm

Source: interviews with the chairmen of the people's committees of two communes

Our survey in two communes (24 farms) gives us more details (see table 181).

Economic level of the household	% of the sample	Cultivated area (sao/household)	Income/capita/month (VND)
Poor	20	2.35	75.5
Medium	55	5.40	132
Better	25	8.75	185

Table 181- Characteristics of the farms (non association members) producing Hai Hau rice according to their economic level

Source: VASI survey/MALICA/MMWB4P, on nonmembers of the Association in Hai Taan and Hai Phong

According to the local wholesalers, the rice that they buy from poor producers mainly goes to the traditional chain because of lower quality. But this assertion is difficult to confirm for the reasons previously mentioned (the chains are not clearly separated at this level). In the Farmers' Association, 20% of the 437 total current members can be considered as poor.

E. Comparison of perfumed rice distribution channels from Hai Hau to Hanoi

Table 182 summarizes the functions of the different actors in the three different distribution chains for Hai Hau rice.

Table 182-
Role of agents
participating in
channels

Agents and chain	Supermarkets/food companies chain	Traditional chain	Association chain
Producers	Production	Production	Production
Association			Processing, packaging
Local wholesalers and collectors	Collection	Collection	-
Hanoi Wholesalers	-	Processing, Distribution	-
Food companies	Processing, Packaging, Distribution	-	Distribution
Retailers	-	Processing, Retailing	Retailing
Supermarkets	Retailing		Retailing

Source: VASI survey, MALICA/MMWB4P, 2004

1. The involvement of the Poor in the different chains

we can roughly assess the involvement of the poor in the different chains, from producers to consumers (table 183).

Summarizing the results presented above

Table 183-
The involvement of the poor in the different distribution chains

Involvement of poor/kg of perfumed rice	Traditional chain	Supermarket/food companies chain	Farmers' Association chain
Producers	++	+	++
Traders	+++	++	
Retailers	++		
Consumers	+		-

The traditional chain involves poor producers, a big number of small collectors and traders and small retailers such as street vendors. Because it offers low prices, it can also involve some poor consumers. Supermarket chains involve fewer poor consumers than the traditional chain, and fewer small traders, but the food companies create many job opportunities. Because of the high prices in supermarkets, they do not involve poor consumers.

The Farmers' Association chain involves poor producers like the traditional one. This distribution chain is short and involves very few traders, poor or not. And because the price of

this rice is very high (but it is a pure perfumed rice), poor consumers are not concerned at all.

But the different chains do not only differ by the share of poor involved in them. We may also consider other criteria such as value-added share, bargaining power, quality management and access to innovation.

2. Economic analysis of the different chains

We use the following principles:

- Price calculation is based on one kg of final product sold retail.

- Cost of additional products to be mixed with perfumed rice will be included as a cost element of the product price.
- Family labor is not considered in the costs.
- We consider that in the supermarket chain one kg of product sold as Hai Hau perfumed rice contains in fact 300g of Hai Hau rice and 700 g of other rice (the mixture is done by the food companies). In the tradi-

tional chain, the percentage of Hai Hau perfumed rice is 70% (mixture done by wholesalers and by retailers) and in the Association chain it is 100%.

- For supermarkets, we calculated the gross margin, not the profit, in the absence of data on costs related to the rice section.

The results are presented in tables 184, 185, 186, and figures 49-52 below.

	Supermarket chain			Traditional chain			Association chain	
	For 1 kg of flavored rice	For 300g of flavored rice (1 kg of mixed rice)	% of retail price of costs and profits	For 1 kg of flavored rice	For 700g of flavored rice (1 kg of mixed rice)	% of retail price of costs and profits	For 1 kg of flavored rice	% of retail price of costs and profits
Producer								
Total production cost	2953	886	10.12	2833	1983	24.79	3231	19.58
Net profit margin	3167	950	10.92	3140	2196	27.45	5442 (3)	32.98
Farm-gate price	6120	1836		5970	4179		(8673)	
Association								
Total processing cost							2125	12.88
Processor's profit							1111	6.73
Association operation cost							448	2.72
Collective insurance							143	0.87
Association sale price							12500	
Collector								
Total cost	500	15	0.28	70	49	0.61		
Net profit margin	800	24	0.37	77	54	0.68		
Collectors' sale price	6250	1875		6117	4282			
District Wholesaler								
Total cost	107	32	3.37	1104	773	9.66		
Net profit margin	1000	300	3.45	800	560	7.00		
Wholesaler's price	7357	2207		8021	5615			
Hanoi Wholesaler								
Total cost					1225	15.31		
Net profit margin					404	5.05		
Wholesaler's price					7244			
Food company								
Total cost		3464 (1)	39.82				270	1.64
Net profit margin		1263	14.52				1030	6.24
Food company sale price		6934					13800	
Supermarket								
Gross margin (2)		1766	20.30				2700	16.36
Supermarket sale price		8700					16500	
Ordinary Retailer								
Total cost					56	0.7	200	
Net profit margin					700	8.75	1000	
Ordinary retailer's price					8000		15000	

Table 184- Distribution of costs, prices and profits along different rice chains

(1): include cost of purchase of 700 g of ordinary rice

(2) Supermarkets are reluctant to communicate their costs, so we displayed the gross margin, not the profit

(3) The association board calculates the sum to be given to farmers (here called farmers' profit) as follows:

Association profit = association sale price minus production cost minus processing cost minus processor's profit minus association operation cost minus provision for insurance

Farmers' profit = 0.62 x association profit + family labor cost equivalent

The farm gate price indicated here = farmers' profit + production cost

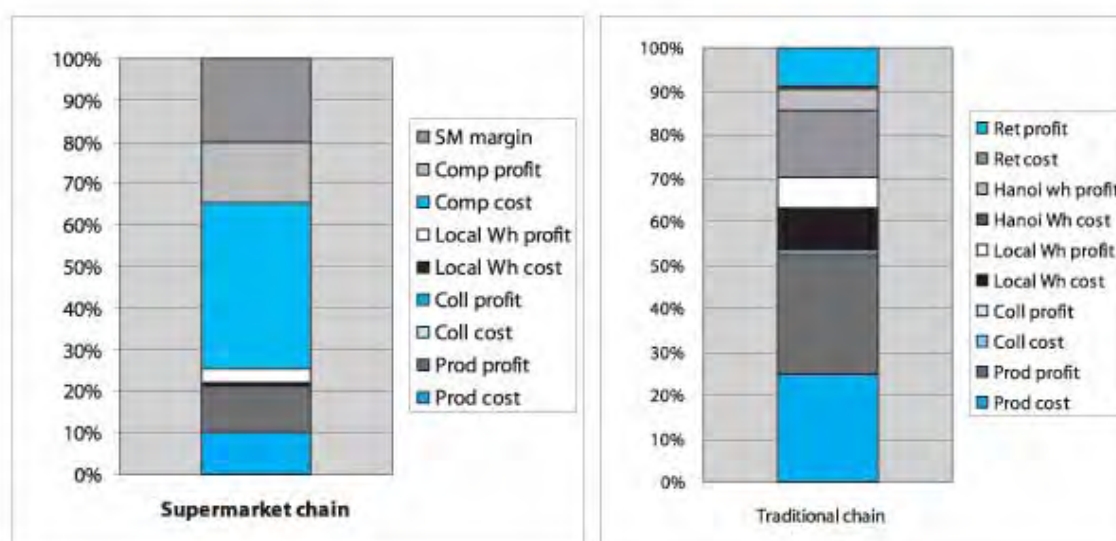
Source: VASI survey, MALICA/MMWB4P, 2005

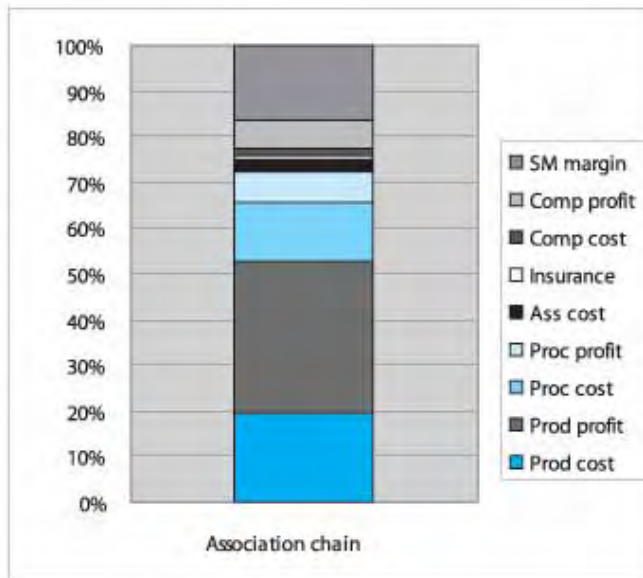
Table 185- Profit of the actors of the different marketing chains

	Supermarket chain				Traditional chain				Association chain		
	Profit for 1 kg of mixed rice (d/kg)	Kg of flavored rice/year	Kg of final mixed rice/year	Total profit (VND)	Profit for 1 kg of mixed rice (d/kg)	Kg of flavored rice/year	Kg of final mixed rice/year	Total profit (VND)	Profit for 1 kg of mixed rice (d/kg)	Kg of flavored rice/year	Total profit (VND)
Total profit of farmer	950				2,196				5,441	275	1,496,382
Poor farmer		289,05	964	915,325		289,05	413	906,791			
Medium farmer		664,2	2,214	2,103,300		664,2	949	2,083,690			
Better off farmer		1076,4	3,588	3,408,125		1076,4	1,538	3,376,350			
Profit of collector	24		83,333	2,000,000	54		35,714	1,928,571	-		
Profit of district wholesaler	300		48,160	14,448,000	560		57,800	32,368,000	-		
Profit of Hanoi wholesaler					404		35,063	14,165,250	-		
Profit of Food companies	1,263		255,000	322,065,000	-				1,030	100,000	103,000,000
Gross margin of supermarket	1,766		3,600	6,357,600	-				2,700	1,800	4,860,000
Retailer											
Profit of small retailer	-				700		4,760	3,332,000	1,000	1,440	1,440,000
Profit of large retailer					700		7,000	4,900,000	1,000	2,400	2,400,000
Profit of street vendor					700		2,700	1,890,000		-	

Source VASI/MALICA/MMWB4P survey, 2005

Figure 49- Breakout of the final rice retail price per kilo between actors' cost and profit





Prod = producer – Coll = collector – Wh = wholesaler – Comp = Food Trade Company – Ret = Retailer – SM = supermarket
 Source: VASI/MALICA/MMWB4P survey, 2005

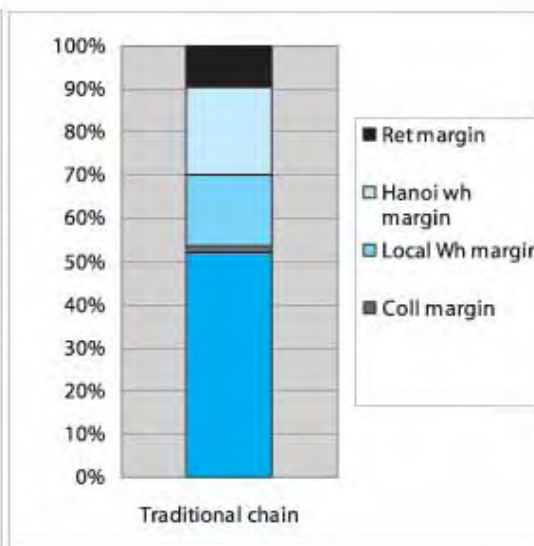
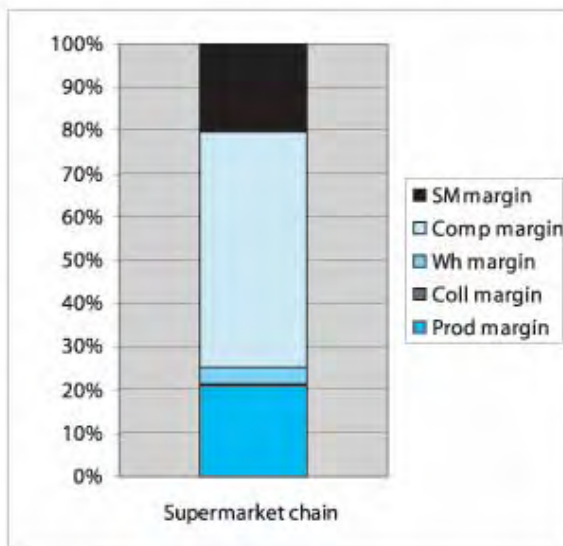
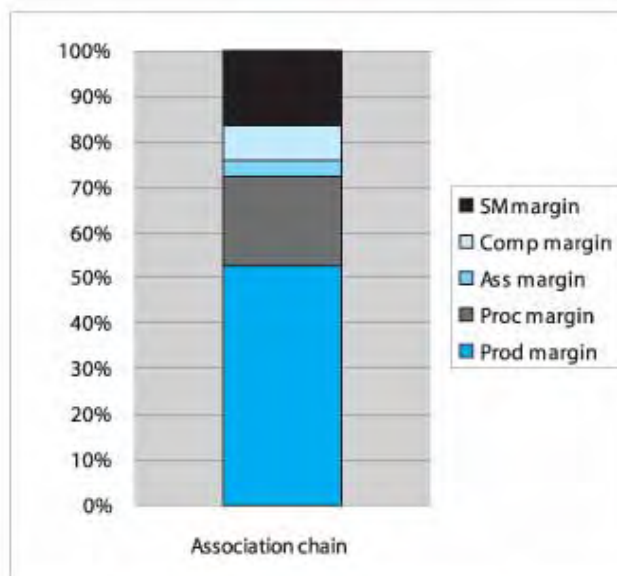
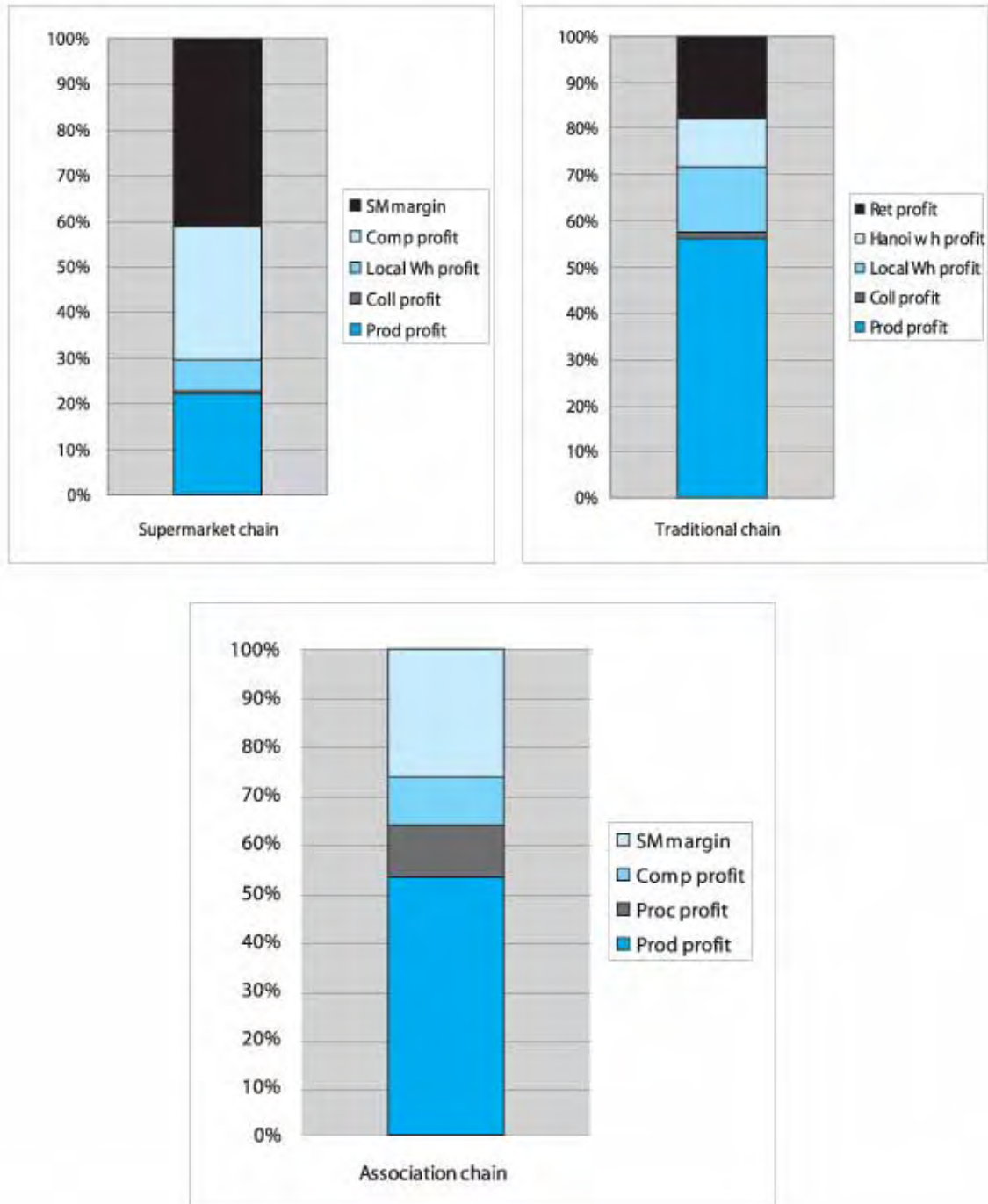


Figure 50- Breakout of the final rice retail price per kilo between actors' gross margins



Prod = producer – Coll = collector – Wh = wholesaler – Comp = Food Trade Company – Ret = Retailer – SM = supermarket
 Source: VASI/MALICA/MMWB4P survey, 2005

Figure 51- Breakout of the sum of total profits between different actors' profits (percentages)



Prod = producer –Coll = collector –Wh = wholesaler –Comp = Food Trade Company –Ret = Retailer – SM = supermarket

Source: VASI/MALICA/MMWB4P survey, 2005

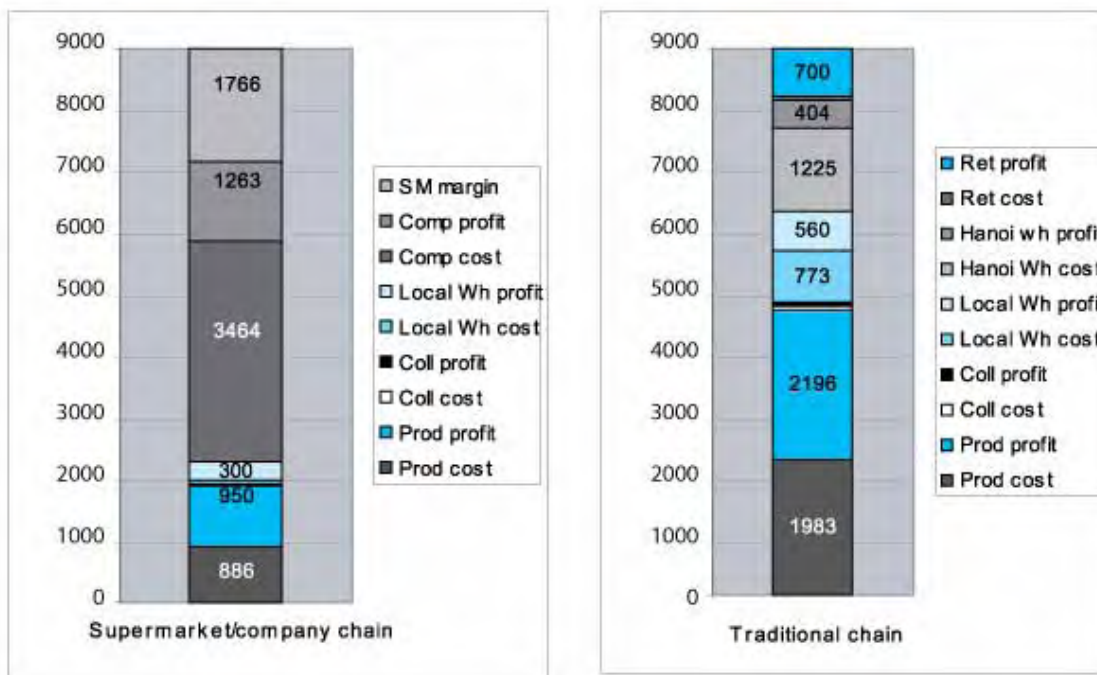
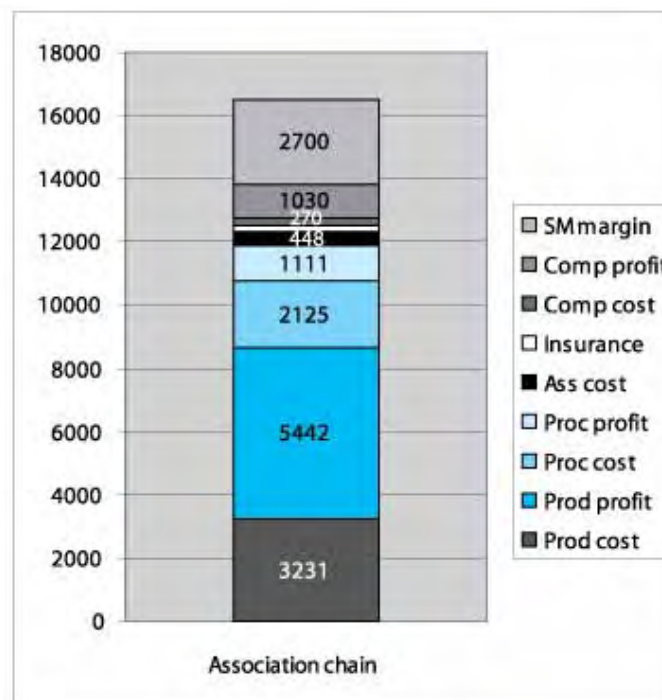


Figure 52- Costs and profits relative to the flavored rice retail price in Hanoi (values)



Source: VASI/MALICA/MMWB4P survey, 2005 - The costs and profits for farmers in the supermarket chain are for one kg of mixed rice, that is for 300 g of flavored rice, while they correspond to 700 g of flavored rice in the traditional chain and one kg of flavored rice in the association chain. So the farmer costs differences presented between the three chains mostly correspond to differences in quantities of flavored rice sold by farmers for one kg of retail rice. For one kg of flavored rice, the production costs are 2833 VND/kilo in the traditional chain, 2953 VND/kilo in the supermarket chain and 3231 VND/kilo in the association chain, the differences relating to higher use of fertilizer, higher cost of seeds and labor.

Profits of the different actors vary between the three distribution chains as follows:

- In the supermarket-driven chain, food companies and supermarkets get the highest gross margin (54.34% and 20.30% respectively) of the final retail price; the food company profit is 14.52% of the final price, while its costs represents nearly 40% of the final retail price. Farmer's profit, 950 VND for 300 grams of flavored rice and one kg of mixed rice (i.e. 3167/kg of flavored rice), represent 10.92% of final price. Farmers' total profits per year range from 915,325 VND for poor farmers to 3,408,125 VND for larger scale farmers, which are lower than all the other actors' profits in the chain.

- In the traditional chain, farmers get a higher profit than the other actors on the chain per kilo of mixed rice, their profit represents 25% of the final price; yet the price equivalent for one kilo of flavored rice is slightly lower than in the supermarket chain (3140 VND/kilo rather than 3167 VND/kilo), and the total income is slightly lower than in the supermarket chain.

- The most profitable chain for farmers per kilo is the association chain with 5442 VND/kilo for flavored rice, or 33% of the final

price; in this chain, the supermarket margin is slightly lower than in the supermarket chain (16.36%), while the final price is much higher (nearly two times as much). The collective action of the Association in terms of technical procedures, purchase of manure from large pig farmers, processing and labeling, enables farmers to improve the quality of product, so that the Association's rice can be sold at a high price (12500 VND/kilo wholesale price by the association, while the district wholesale price equivalent of flavored rice is 7357 VND/kilo in the supermarket chain and 8021 VND/kilo in the traditional chain). When considering the total income per year, the income of farmers in the association is around 1,500,000 VND, i.e., between the income of poor and medium-scale farmers of supermarket and traditional chains, due to the still limited scale of production (275 kg/farmer).

While in the traditional chain, price distribution between the different actors will be agreed by seller and buyer during each transaction, it results from a collective agreement among actors of production, processing and trading in the association chain.

Table 186-
Production
cost of
flavoured rice
in the three
chains
(VND/kilo)

	Supermarket chain	Traditional chain	Association chain
Production	2 953	2 833	3 231
Labor cost			1 639
Labor cost for farming	1 067	1 068	1 393
Labor cost for irrigation/plough services	267	267	246
Input costs	1 498	1 498	1 592
Seeds	33	33	50
Manure	1 034	992	1 131
Pesticides	432	474	411
Packaging and labeling costs	121	-	-

Source: VASI/MALICA/MMWB4P survey, 2005

3. Coordination Mechanism in each chain

There is also a clear difference among channels concerning coordination method. Within each channel there is one major coordination agents:

- Traditional chain: Hanoi wholesalers.
- Supermarket/food companies chain: the food companies. They do not depend only on supermarkets but have other sources of

demand such as small retailers, exporters, etc. They even have they own shops.

- Farmers' Association chain: The Association

Producers' decisions to sell rice

The decision of the producers to sell rice depends on its state (dried rice is sold at a higher price), on the price fluctuations on the

market and on the need of the household for cash. The importance of these different factors in the farmer's decision is presented in table 189

Households with cash constraints mainly use strategies 1, 2 or 3, mainly because they need cash to buy food or to buy inputs. Selling right after drying is the method commonly selected by mid-income or better-off households. Poor households can barely choose the time for marketing their products. They cannot store rice storage while waiting for a better price. Within association channels, the shortage of

capital, which induces farmers to sell rice right after the harvest, has now been solved by advanced payment.

Order and payment: transaction agreements

The differences between the three chains are summarised in Table 187.

i. Traditional chain

Within the traditional chain, all suppliers and

	Number of farms			Price	Price variation (%)
	Poor	Medium	Better off		
1. Selling right after harvest, before dry (fresh)	2	1	-	3,900	50
2. Selling right after drying	2	5	2	4,050	100
3. Getting advance from collector or agent but waiting for good price	-	3	-	4,150	100
4. Selling at the end of the year	-	-	1	4,300	50
5. Waiting for good price regardless of time	-	2	2	4,300	80
Total	4	11	5		

Source: VASI/MALICA/MMWB4P survey, 2005

Table 187- Marketing strategies and constraints of fragrant rice producers from Hai Toan and Hai Phong communes (unit: number of households)

retailers agree by telephone upon prices, quality and time of delivery. If these agreements are short term and oral, we can see in fact that most of the Hanoi wholesalers set up long-term and stable relationship with their local wholesalers in Hai Hau.

To create a stable supply source, Hanoi wholesalers retain a percentage of their payment to local wholesalers whom they only pay when they receive the next supply.

Local wholesalers often have different strategies to create a stable supply source:

- Storage: the agents purchase paddy at the harvest time for storing it. Quantity depends on the financial capability of each agent. However, the quantity may vary from 20-25 tons, depending on market price.

- Contract with farmers: some collectors can decide on a quantity and a price with farmers but the farmers ensure the storage of the rice.

ii. Supermarket chain

Written contracts link supermarkets and food companies. Price, quality and delay for delivering are the major points of the contract. The quantity is not set by contract. Supermarkets generally buy and store the quantity that they need for 10 to 20 days. Food companies are normally in charge of delivering their products to supermarkets. In this method, deposit is made without any contract conclusion. Supermarkets do not control the quality but rely on registration of the product at the Department of Health.

Supermarkets issue invoices and by the agreed time of payment, the food company will come back to get payment on the actual sale volume implemented by the supermarket.

Transaction is based on a fixed price list. To

Table 188 - Difference in transaction relations between the three chains

Characteristics	Supermarket/food company chain	Traditional chain	Association chain
Method of transaction	Formal contracts link food companies with local wholesalers and with supermarkets.	Oral agreements by phone call for each delivery	Contract of exclusivity between Farmers' Association and two food companies
Decisive factor in transaction process	Price Quality Brand and package Time of payment Customer services	Price Quality Time and volume of supplies Term of payment	Price Quality Brand and package Time of payment Risk sharing conditions Supervision role

stabilize their selling price, the food companies adjust the percentage of perfumed rice in the product that they sell as "perfumed rice".

iii. Association chain

The Association and the two distribution companies are strictly bound by a contract. The two distribution companies also contract with supermarkets. However, the Association will get payment from the supermarket once on a defined date regardless of the volume sold. For the retailing shops supplied by the two food companies, the companies get 50% of the payment at delivery and the other 50% when the goods are sold.

4. Quality management in the different chains

The ability of each chain to manage quality is an important criterion of efficiency, especially for the distribution of a product such as perfumed rice.

The Farmers' Association chain is the only chain supplying consumers with pure perfumed rice. The two other chains supply a mixture (30% of perfumed rice for the supermarkets/food companies chain and 70% for the traditional chain). But the percentage of perfumed rice is not the only criteria of quality.

i. Criteria of quality for the different actors

For each transaction, the criteria are slightly different as shown in table 189:

In the traditional chain, the quality of the product will impact the price but will not put into question the decision of transaction. In the supermarket chain, the companies are

involved in quality control. Within the Association chain, there is a responsibility shared by all the actors for quality management. But the Association is only in the first year of its activity, and some producers have problems in reaching the criteria for quality: the reasons are mostly technical (quality of input, technical process,...). This has resulted in some consumers' being not satisfied by the quality of rice sold during the association promotion fair in 2005.

F. Discussion and conclusions

In market transactions, requirements in terms of price, volume to be delivered, regularity, method of payment and standards of quality are the major issues. Comparing these requirements in the three distribution chains for Tam Xoan Hai Hau rice, we can conclude that the traditional retailers deal with larger quantities of rice, much larger than in supermarkets. The quality of rice in supermarkets is lower than that in traditional markets (with only 30% of perfumed rice in the products sold as "perfumed rice"). The requirement in terms of quality from the supermarkets is more related to packaging. Because the chains are not clearly separated at the level of the production, the prices offered to producers (for one kilo of flavored rice) are nearly the same in the traditional chain and in the supermarket/food company chain.

So price, quality and quantity are not a barrier for selling in the supermarket/food company chain at present. The major difficulty for producers or traders to shift from traditional chains to the supermarket/food company chain is linked to the difficulty in shifting from the informal to the formal sector. Actors in the supermarket/food company chain must be legal entities; payments must be made

Table 189-
Quality criteria
for transactions
in the different
chains

Transaction	Supermarkets/food companies chain	Traditional chain	Association chain
Producer /collector (producer/association (collector and association checking)	- color of paddy - fragrance of paddy	- color of paddy - fragrance of paddy	- type of land - seed - production technique - quantity of manure and other fertilizer - harvest time - color and shape size of rice seed - humidity in rice seed - ratio of immature paddy - fragrance and glutinosity - broken rice rate
Collectors/local wholesalers	- Production areas - color of paddy - fragrance of paddy	- Production areas - color of paddy - fragrance of paddy	
Local wholesalers/Hanoi wholesalers		- color of rice and cooked rice - fragrance of rice and cooked rice - uniform size of rice	
Hanoi wholesalers /food companies	- color of rice - fragrance of rice and cooked rice - uniform size of rice - broken rice rate		
Farmers' Association/ Food companies			- brand and package - regularity of the quality - quality of cooked rice - type of bag
Food companies/ supermarkets	- fragrance of cooked rice - Brand and package - Source of product - certificate from Department of Health		- brand and package - Source of product - quality of cooked rice (aromatic, soft, flavour, taste and etc) - certificate of rice hygiene
Hanoi/Retailer		- color of rice - fragrance of rice and cooked rice - uniform size of rice grain	- color of rice - fragrance of rice - uniform size of rice grain - brand and package - quality of cooked rice

through taxable invoices and the suppliers need to be registered by the Department of Health.

In these two distribution chains (traditional and supermarket/food company chains), consumers are somehow cheated on the quality of the perfumed rice. Moreover, producers are not given incentives to increase the quality of their products. Tam Xoan rice variety has a lower productivity than other perfumed rice varieties such as Bac Huong, so small farmers cannot get involved in this production unless they have some guarantee of receiving a higher price for their rice (see Table 190).

Only the Farmers' Association chain is clearly separated from ordinary rice chains beginning at the production stage. It is the only chain selling pure perfumed rice (but at a very high price). This situation allows better quality

control.

The experience of supermarket development throughout the world allows us to postulate that the requirements of supermarkets in terms of quality will be higher in the future. If their scale of sales increases they will be able to impose their criteria on food companies (whose requirements in terms of quality are quite low at the moment) or even to squeeze out food companies. In this case farmers' associations such as the one in Hai Hau can be a valuable interface to guarantee farmers' interests as well as quality for the benefit of consumers. In the same way, professional organizations of traders (collectors, wholesalers) could support the adaptation to these changes.

Table 190–
Role of the
different actors
of the different
Hai Hau rice
chains in quality
management

Actors of the chain	Supermarket/food company chain	Traditional chain	Association chain
Producer	No incentive to produce quality	No incentive to produce quality	Technical support to reach quality standard
Association			Involved in the definition of quality standards and in quality management
Collector	Impact through mixing practices	Impact through mixing practices	
Local agent	Control the quality of rice delivered by collectors	Control the quality of rice delivered by collectors	
Hanoi agent		Impact on quality by mixing practices and storage condition	
Distribution company (foodstuff or distribution company or retailing company)	Impact on quality through processing practices, mixing and storage		
Retailer		Impact quality by mixing practices and storage condition	
Supermarket	No role in quality management		
Consumer	Consumers receive a mixture of aromatic and non-aromatic rice, without clear information	Consumers receive a mixture of aromatic and non-aromatic rice, without clear information	Consumers receive pure aromatic rice

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XII. APPENDICES

Appendix 1. Food consumption

No.	Indicator	Unit	1998	2002	Increase (%)
1	HH's income/month	1000 D	516.9	848.8	64.21
2	HH's spending on food/month	1000 D	186.9	190.8	2.09
3	Volume of rice/month	Kg	9.83	9.75	-0.81

Source: Calculation from VLSS statistic 98, VLHSS 2003

Appendix 2 . Rice outlets

List of supermarkets in Hanoi (February/2005)

No.	Name	Address	Telephone
1	Thai Ha Supermarket	174 Thai Ha, Dong Da District	
2	Star Bowl Supermarket	2b Pham Ngoc Thach, Dong Da District	
3	FIVIMART Supermarket	777 Giai Phong, Hai Ba Trung District	
4	Hasinco Supermarket	2 Ngoc Khanh, Ba Dinh District	7715317
5	24 H Supermarket	74 Dao Tan, Ba Dinh District	8325942
6	Citymax Supermarket Family Mart	49 Hai Ba Trung Street	9432888
7	Supermarket	152 Lac Trung, Hai Ba Trung District	8210071
8	Trang Tien Supermarket	Trang Tien, Hoan Kiem District	
9	Quan Nhan Supermarket	Tran Dang Ninh - Cau Giay District	
10	FIVIMART Supermarket	210 Tran Quang Khai, Hoan Kiem District	8260167
11	Kim Lien Supermarket	9 Dao Duy Anh, Dong Da District	
12	Metro Cash & Carry	Nam Thang Long, Tu Liem	8342086
13	Sao Ha Noi Supermarket	36 Cat Linh, Dong Da District	7330092
14	INTIMEXT Supermarket	29 - 33 Le Thai To, Hoan Kiem District	8256105
15	FIVIMART Supermarket	10 Tran Vu - Tay Ho	7162676
16	Coop Mart Supermarket	1 E Truong Chinh, Hai Ba Trung District	8280399
17	Seiyu Supermarket	8 Pham Ngoc Thach, Dong Da District	5742451
18	Minimax Supermarket	66 Ba Trieu, Hai Ba Trung District	9430466
19	Supermarket 23 Lang Ha	23 Lang Ha, Dong Da District	8262205
20	Nam Bo Supermarket	So 5 Nam Bo, Hoan Kiem District	7474853
21	Marko 2 Supermarket	379 Tay Son - Dong Da District	5634119
22	Marko 1 Supermarket	649 Kim Ma, Ba Dinh District	7664490

23	D2 Supermarket	144 D2 Giang Vo, Ba Dinh District	3343846
23	Big C Supermarket	Tran Duy Hung, Cau Giay District	
24	Vinaconex Supermarket	Vinaconex residential area, Cau Giay District	
25	Ha Noi Supermarket INTIMEXT 3	Le Dai Hanh, Hai Ba Trung District	
26	Supermarket	135 Hao Nam, Dong Da District	
27	VKO Supermarket	Giang Vo, Ba Dinh District	
28	Minimax Supermarket	Hoang Quoc Viet, Cau Giay District	
29	Petro Supermarket	Xuan Thuy, Cau Giay District	
30	Wincom Supermarket	Wincom Tower, Hai Ba Trung District	
31	City Max Supermarket	Chua Boc, Dong Da District	
32	INTIMEX Supermarket	So 26 Ly Thai To, Hoan Kiem District	
33	Hanoi Supermarket	Hoa Lu, Hai Ba Trung District	
34	FiVimaxt Supermarket	VND Tam, Hai Ba Trung District	
35	Bach Khoa Supermarket	Bach Khoa, Hai Ba Trung District	

List of markets' stalls selling rice in Dong Da and Hai Ba Trung districts

No.	Dong Da District	No. of sellers	Hai Ba Trung District	No. of sellers
1	Ngo Si Lien market	7	Nguyen Cong Tru market	5
2	Van Chuong Lane market	9	VND Tam market	5
3	Kham Thien Lane market	15	Mo market	15
4	Vinh Ho market	3	Cao Dat market	3
5	Thai Ha market	7	Nguyen Cao market	8
6	Kim Lien flea market	5	Hom market	2
7	Phuong Mai temporary market	2	Tran Khat Chan Dyke market	2
8	Phao Dai Lang market	5	Bach Dang market	4
9	De La Thanh Lane market	6	Vinh Tuy market	3
10	Hao Nam market	5		
	Total shops	64		47

Appendix 3. Food companies selling rice

No.	Name of distributors	Type of rice sold
1	Yamada Ltd. Co.	Xuan Dai perfumed rice Hai Hau perfumed rice Northern special rice Mountainous special rice Northern Perfumed rice Thai rice Japanese rice
2	Northern Food Company	Special rice Xuan Dai perfumed rice Hai Hau perfumed rice
3	Green World Company	Tam Xoan rice Northern perfumed rice Green World rice
4	Ho Chi Minh City Food Company	Nang Thom rice
5	Long An Food Company	Huong Lai rice
6	Vinh Ha Ltd. Co.	Hai Hau perfumed rice Northern special rice
7	Bao Minh Co.	Hai Hau perfumed rice Northern special rice