CHAPTER I

INTRODUCTION

1.1 Background

Since the beginning of its 'Doi Moi' market reform process in 1981, Vietnam has achieved remarkable success in increasing the output of rice. From being a large importer of rice throughout the early 1980's, Vietnam has now become the second largest exporter of rice in the world, with the total output of all agricultural products more than doubling during the main period of reforms from 1981 to 2005. Even more notable is the fact that these gains have been achieved with a relatively modest growth of most inputs and with little or no technological change. The market reform process in Vietnamese agriculture over this period has been pervasive, including a significant liberalization of internal and external trade, greater autonomy for farmers in decision making and fundamental institutional change including the reform of the property rights regime.

Vietnam's food crop production, of which 85 percent consists of rice, continues to be the largest share of the gross agricultural output and the focus of agricultural policy concerns. More than 70 percent of the rural population depends on food production for their main source of income. On the average, the value of gross agricultural output (including animal and fishery products) shares 49 percent of GDP and 42 percent of current total export value (Hai, 2003).

The Mekong Delta (MD) of Vietnam is one of the largest rice production areas in Vietnam and Southeast Asia (ASIAN). The statistics shows 3,785,800 ha/year of cultivated area and over 17 million tons of rice (General statistical 2006). From 1989 – 2005, total rice production has been increased at an average of 5%/year (1 million tons/year). Export rice accounts for 30% of total value agricultural exports. At present Vietnam is major rice exporter in the world market and in particular the surplus

produced in the Mekong Delta is sold abroad. Between 1996 and 2005 on average 3 million tons of rice, about 40% of total rice production in this region, were exported from the Mekong Delta.

Glutinous rice, also called sticky rice, sweet rice, sushi rice, waxy rice, has been cultivated in MD for along time ago. In the past, it was for local consumption ceremonial dishes and pastes. In recent years, Vietnam's glutinous rice has been exported, which the main market export of Vietnam's glutinous rice is Southeast Asia (Philippines, Malaysia, Singapore and Indonesia). In 2000, Vietnam exported a total of 17,000 tons glutinous rice and approximately 23,000 tons in 2003 and 84,200 tons in 2005. In 2003 the export price increased so that the domestic price also increased, the farmers changed from non-glutinous rice to glutinous rice, so the total amount of glutinous rice export increased very quickly (figure 1.1). Singapore and Indonesia are regular customers.

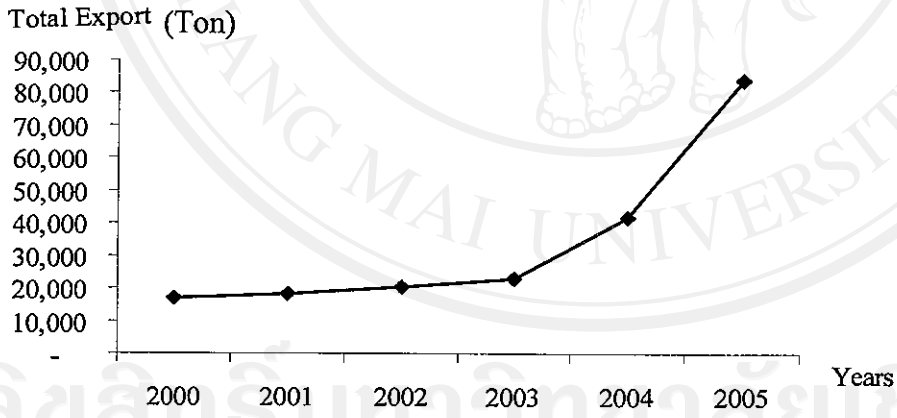

Figure 1.1: Amount of glutinous rice exported of Vietnam
Source: Planning Department, MARD, 2006

1.2 Statement of problem and rationale

Throughout the world, the major share of staple food costs to the consumer is typically accounted for by marketing costs. In MD, marketing costs account for about 279% of the total price spread between producer and retail prices (Hai, 2003). The

reduction of these costs represents a major opportunity to improve farm production incentives and simultaneously make food more affordable to low-income consumers.

In the Vietnam, there are a lot of parties and festivals. These activities used a lot of cake made from glutinous rice (GR), but the glutinous rice in the Red River Delta is not enough for their consumption. Every year a large amount GR flows from Mekong Delta to all of the Northern and Central provinces. But the marketing channel and transportation system is the big problem for marketing system, so it will reduces quality and increases the cost of product.

Moreover, the potential for future farm-level income and productivity growth of GR farmers in MD will be intimately tied to productivity growth at the various stages in the marketing system. Abundant worldwide evidence has shown that the incentives and ability for farmers in Mekong Delta to make investments in productivity enhancing inputs and production methods depends on the functioning of markets for inputs, credit, and crop distribution. Unfortunately, discussions of rice marketing policy in Vietnam have often taken place in an information vacuum, with very little empirical knowledge of market structure, the behavior of the various actors in the marketing system, and the constraints they face that impede further innovation and productivity growth in the food system.

The questions for this study are;

- How is the glutinous rice marketing system organized and coordinated? Is the glutinous rice trade business composed of many small units competing with one another or is it dominated by few large participants?
- What are the approaches used by traders in buying, selling and pricing glutinous rice?
- Are there any barriers to entry, and if so, what are the major factors?
- What problems and constraints are observed in transportation, storage, financial credit, and market information?

With rapid development of glutinous rice yield and areas a synchronous development of marketing systems required. The aim of this study is to look for improvement not only for the existing rice marketing channels but also to make the distribution channels more efficient. Some previous studies also study about production, so the urgent requirement is the formal study about marketing glutinous rice in Mekong Delta, Vietnam.

1.3 Literature review

1.3.1 Marketing system

Since the market liberalization of 1990, some studies have interviewed traders as a beginning for examining the organization and behavior of food marketing system (there were Wolday 1992; Alemayehu 1993; and KUAWAB 1994). On the other hand, the conclusions of these studies were typically based on non-random and relatively small samples of food traders in specific areas of some the country. The study conducted by Alemayehu (1993) in Chilalo, Ada, and Addis Ababa, the aimed at analyzing the impact of deregulation on grain market participants and on the economic performance in the marketing system. This study analyzed market structure and market performance partly based on primary data sources including a sample survey of 141 farm households, 17 traders engaged in petty trade, assembling, wholesaling, and retailing in the study areas; 10 brokers operating in Addis Ababa, and some other traders from different region of the country. In the same way, Wolday (1992) analyzed the marketing system in Southern Ethiopia. Author is using the industrial organization model and focusing on two crops, namely, maize and tiff. The study was based on a sample investigation of 33 wholesalers, retailers, and farmer-traders. The rapid market appraisal was also conducted by KUAWAB (1994) Business Consultants, covering 9 crops and 31 important markets in 13 regions, and it collected data from non-randomly selected farmers, traders, and institutions in both grain extra and deficit areas of country.

The general results of food market performance based on these studies are sometimes contradictory and are summarized as follows:

Wolday, 1992 found that private sector grain trade has become competitive and more efficient than the parasitical trade. Spatial price spreads were higher compared to the estimated transfer costs and cost of transporting food from rural to city markets was particularly high for small and medium trucks. There were indications of collusive behavior in some rural markets to the detriment of grain producers. Grain traders were highly concentrated in the hands of few licensed wholesalers but an increasing participation of un-licensed traders helped improved competition. Seasonal price differences were high compared to the estimated storage costs.

Private sector marketing margins generally declined after the deregulation of grain markets. Although the degree of competitiveness varied from market to market, the markets generally appeared to be highly competitive. Capital ceilings that had been placed on the private sector were removed and traders were free to move food from market to market. Returns to transport and storage were about normal suggesting that the transport and storage functions were carried out with reasonable efficiency and also the price performance (KUWUAB, 1994)

The returns to trade were normal compared with the expected and were much lower compared with the risks of transporting food over space and storing food over time. There were many barriers to entry, such as lack of working capital and financial credit. Following deregulation of food markets, most food markets both at local and national levels became more integrated in the short - run (Alemayehu, 1993);

1.3.2 Market Structural – Conduct – Performance

According to the argument of "Structure-Conduct-Performance Hypothesis" (SCP), in the theory of industrial organization, highly concentrated markets are less competitive than markets in which many small firms operate. Firms in less competitive markets are expected to pay less for their inputs and sell their outputs at a higher price, thus enjoying higher profits. Following the SCP hypothesis, regulators, in many countries, when evaluating merger proposals, focus on market concentration measures. If concentration reaches an enough level, the presumption is that competition would decrease. Note that concentration is a market-wide measure and may not consider the relative size of the merging firms. Arie *et al.* (2005)

Some authors take as a point of departure some of the ideas from the structure-conduct-performance approach to analyzing markets developed since the 1930s in the industrial organization literature (McKie, 1970; Phillips, 1970). At its simplest concept, the market structure-conduct-performance paradigm attempts to evaluate market performance in the form of output and prices in relation to firms' conduct (behaviour) and the market structure of the industry (which are themselves inter-related). This approach was adapted to assess the behavior and performance of governments rather than firms (Siamwalla and Haykin, 1983) in the world rice market. Here, the structure of the world rice market was described as a thin residual market. The conduct of countries participating in the market was analyzed to see how policies affected the traded volume, and the market structure. The performance of the market was then assessed in terms of stability, static and dynamic efficiency, and income distribution.

Following the market structure- conduct-performance (SCP) framework from the economics of industrial organization, a number of studies of bank behavior have used measures of market structure as proxies for market power (see for example, Amel & Liang (1990) and Frame & Kmerschen (1997) and Akhigbe & McNulty,

(2003)). According to this framework, there is a positive relationship between general market concentration and firm profitability. The underlying assumption is that high degree of market concentration endows all the firms in that market with significant market power. This, in turn, makes it easier for the firms to collude in order to obtain monopolistic profits.

Ajala and Sanni (2003) found that a market survey of 30 swine traders in Kafanchan, Nigeria was conducted to evaluate the structure, conduct and performance of the market. Although there were many sellers and buyers and no collusion, Lorenz curve analyses showed that 30% of all traders handled 74% of the sales. The GINI coefficient was also high (0.53), indicating gross inequality in size distribution and seller concentration, hence oligopoly. Analyses also showed that the market was vertically integrated. Cost of transportation (N100/ animal) was the highest of the marketing services, representing 50.4%. Total cost of marketing services (N198.26 / animal) was a small proportion (6.5%) of final sale price. Estimated gross margin was N742.36 / animal) which was 24.2% of the sale price. The only element of barrier that existed was the high operating capital required. Price determination was by haggling and no standardization of product existed. The need and means of improving the nature of competition are highlighted.

This category of studies includes Pabuayon *et al.* (1997) which adopted a market structure-conduct-performance (SCP) framework to determine how the fishery sector is affected by market engineering and associated linkages and arrangements in the input and output markets. To assess the structure of the market, the parameters such as number and distribution of firms were documented. The behavior of the firm was evaluated in terms of raw material and input sourcing, selling, pricing, and other arrangements among firms. The performance of the industry was analyzed using indicators such as production and export growth, product availability, profitability, employment potential and workers' benefits, capacity utilization, technology adoption and environmental aspects.

The SCP paradigm proposes that the structural characteristics of an industry lead to specific firm behaviour which in turn influences performance and consumer outcomes. The structure of Australia's retail superannuation fund industry is characterised by detailed regulation, increasing complexity and high demand for funds management services. Within this environment, funds managers appear to conform to a monopolistically competitive market structure leading to suboptimal outcomes for investors – despite a plethora of funds from which to choose Adam *et al.* (2005).

Many others researchers applied the market SCP method for conducting their study on agricultural markets in developing countries. Interesting SCP method studies on agricultural marketing in developing countries include Jones (1972), Rao (1984), Van Tilburg (1988), Purcell (1990), Setboonsarng (1992), Lutz and Van Tilurg (1992), Tollens (1992), Goossens (1994), Tam (1995), Dijkstra (1997), Hai (2003) and Thang (2005).

Rao (1984) studied in changes in the marketing structure and policy in the case of tobacco in Pradesh of India. The report showed that the structural changed in most agricultural goods are due to active involvement of private, cooperative and government agencies. These structural changes induce changes in conduct and behavior of marketing agents in response, for primary, secondary and terminal market.

Purcell (1990) applied SCP method to analyzed beef industry in United States, it found that the principle of this method is to evaluated the efficiency and fairness of the beef industry systems by examining the structure, conduct and performance of individual markets within the economy.

Setboonsarng *et al.* (1991) use SCP paradigm to analyze the performance of marketing agencies in different sectors involved in seed production and distribution in Thailand. The result showed that different market structures induced different market conduct and performance of marketing agencies. The seed industry is an important conduit for transferring new technology to the farmer. However, the majority of the

seed used in Thailand consists of seed saved by the farmers themselves. The public sector has been active in agricultural research and in the transfer of new technology to the farmer through its seed distribution program, especially for major crops such as rice, maize, and soybean. The private sector has been active in the hybrid seed market, particularly the vegetable and hybrid maize seed markets. This research monograph assesses the performance of these two sectors and recommends their appropriate roles in Thailand's seed industry.

Tam (1995) studied on rice marketing system in Northern Vietnam. The results show that two equally important buyers of rice and paddy from farmers were local consumers and merchants who together absorbed 66% - 72% of marketed rice. There were 3 – 4 alternative buyers for farmers; each of them handled a small amount in comparison with a state company that purchased 25% of farmers scale. Even though the market share of private business has increase, the state company which was problematic in terms of organizational still held the key role in the rice marketing system. The obsolete milling technology and poor transportation services were the main problems in rice marketing. Storage facility was available to state food companies, but poor and thus underutilized. The state companies paid the highest paddy to farmers, especially for export quality, and earned the lowest net margin, 4%-6% of retail price as compared to high margins (8% - 10%) earned by merchants. The average marketing cost was about 9% of retail price.

Hai (2003) used SCP method to investigate the rice marketing system in Vietnam can be characterized by competition. In general it is concluded that no important barriers to entry exist; that the degree of trader concentration is low; the rice products marketed are rather homogenous; and market information is easy to obtain. The marketing channel, through which paddy/rice passes from farmers to final consumers, is quite complex. Eight main rice-marketing channels are identified. In the domestic rice market, private rice traders, including assemblers, wholesalers, brokers, and small millers, play an important role in distributing the product at the regional and inter-regional level. However, as a result of the same trade policy, a small group of selected large millers/polishers and in particular the SOEs controls the export

channels. The traders perform different marketing functions: transportation, storage, negotiation, processing, market information, and financing. Boats are the most popular means of transportation in the Mekong Delta. Transportation, loading and unloading costs do not vary much among rice traders. Storage is more important to rice millers/polishers in order to guarantee supply to their milling machinery. Storage for speculative purpose is a minor activity for rice traders. Trade credit is relatively important for transactions between rice wholesalers and retailers; and between rice millers/polishers and the SOEs. The producers and traders in the market offer suitable types of rice quality to satisfy consumer preferences. Dependent on the benchmark used, the rice assemblers and retailers may be considered as the most efficient traders as they obtained the highest profit if expressed as a percentage of the cost price.

Thang (2005) applied SCP approach to analysis on marketing system of rice at Mekong Delta. The result showed that the most important barriers to enter into the rice market are firstly capital and secondly severe competition. The traders get information about the price in the market easily.

1.3.3 Marketing channel

Some authors studied marketing channel on non-glutinous rice marketing system such as Dung (1998), Naohiro *et al.* (1999), Young *et al.* (2001), and Khiem and Pigali. (2002).

Dung (1998) investigated that the rice marketing system was complex. Private traders played an important role in moving and trading rice (100% of the marketing activities were conducted by private traders). The percentage of time involving rice trade of private traders was over 70% indicating that they have specialized careers. The average age of the traders was around 40 and for those working as assemblers. The age was relatively younger than the others probably because their work requires more physical strength in collecting rice in large areas. Because of lack of capital, poor marketing information, traders normally cheat farmers. Thus, the farmers

received a lower market price for their products. However, most of these studies have focused on general and macro policies on rice marketing system.

Naohiro *et al.* (1999) demonstrated that the private sector is playing the main role, controlling about 80 to 90% of the total amount of rice that is distributed in Indonesia. In the private sector, large distributors are mostly Chinese Indonesian and medium and small distributors are Pribumi (indigenous Indonesian). Even though Chinese Indonesian are playing an important role in the rice distribution, they do not necessarily hold a monopoly. The public sector agency, Badan Urusan Logistik (National Logistics Agency, BULOG), plays the following roles: contributing to price stabilization by purchasing rice, maintaining buffer stock and releasing it onto the market; distributing rice to the poor; providing rice to public servants and others.

Nyoro *et al.* (1999) shown that the structure of the post- liberalization maize market in Kenya reveals that there are numerous different stages in the marketing of maize from farmer to consumer. Maize trading businesses in Kenya are also horizontally integrated, i.e.; they are also engaged in other businesses outside the grain sub-sector. For a majority of maize traders, the other business activities were not enterprises such as retail shops, transport and farming that could be directly linked to maize business. Liberalization of maize marketing has led to a decline in inflation-adjusted maize prices throughout the country. The price decline was especially pronounced in the maize deficit areas. Maize marketing at most stages in the system has a low degree of market concentration. Maize in Kenya is currently traded almost entirely in the spot market with little or no evidence of the existence of other institutional marketing arrangements like forward contracts or commodity exchanges. Indeed, a commodity exchange exists in Kenya, but no maize has been traded on it so far and most respondents were not aware of its existence.

Young *et al.* (2001) investigated that marketing cost from the farm gate to the public food company and added $11 per ton of paddy. The milling cost per ton of white rice was $7.27 including short – term storage. Unit operating cost per ton of rice marketing agents, the Mekong Delta was estimated at $11.67 for wholesalers, $6.29

for medium size millers, $7.29 for large millers and polisher and $44.99 for state-owned enterprises.

Khiem and Pigali. (2002) estimated MD farm sale outlets in 2002 were 10% to state assemble, 80% to private wholesale assemblers, 8% to retail assemblers and 2% to millers. The net marketing margin of processing costs of state – owned enterprises ranged from 43$ to 55$ per ton, about 4 to 5 times higher than private millers.

Shaikh *et al.* (2005) found that that 83% of households sold exclusively unpolished rice and only 17% of households sold partially polished rice, although selling polished rice could earn 30% more money. As land cultivators with less than one acre did not have sufficient marketable surplus, they were excluded from the survey. In the study, statistical mean has been used for the calculation. It is argued that because of the limits on alternative ways of improving the conditions of the villagers, promotion of polished rice marketing may be a major way of alleviating poverty and improving living conditions.

For the purpose of regulation of proposed mergers, it is believed that competition is reduced due to seller concentration. This is particularly important in markets that were concentrated before the merger under scrutiny is about to take place. Therefore, it appears that anti-trust enforcement focuses on markets that exhibit high levels of concentration, but not on markets with low levels of concentration. In most cases the change in concentration due to a proposed merger is of concern (Rhoades, 2000; Pilloff and Rhoades, 2002).

1.4 Objectives of study

This study examines the existing marketing system and marketing channels of glutinous rice in the Mekong Delta, Vietnam. It concentrates on the domestic market structure as well as the relationship between different agents in the GR marketing system and attempts to assess the efficiency of the market services supplier. Specifically, the objectives of this study are:

1. To examine the domestic market structure, and behavior of firms in the glutinous rice market , Mekong Delta, Vietnam

2. To describe and analyze the distribution channels from farm gate to terminal markets of glutinous rice

3. To determine the marketing costs, marketing margin and profits of glutinous rice marketing channels

1.5 Usefulness of study

The results in this study expected to be useful at the micro and industrial levels for issues related to glutinous rice marketing systems. This knowledge will be useful for policy makers who prepare policies to develop markets such as; marketing strategies, trade policies, regulations, institutions and services. Moreover, the information may also facilitate the decision making process of private traders and farmers. Researchers will understand about the glutinous rice marketing system, and related problems obstructing development of the glutinous rice marketing system.