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AGRICULTURAL MARKETING AND POLICY ISSUES IN KOREA : TRENDS AND PROSPECT*

GUILL-HAENG HUH **
YONG-SUN LEE ***

I. Introduction

Food consumption in Korea has experienced dramatic changes since the late 1970s. The rapidly growing income has changed the pattern of food consumption of consumers. And the changes in the pattern of food consumption are calling for a change of agricultural marketing system in turn.

Agricultural marketing system in Korea is a very complex one. It consists of several sorts of marketing subsystem, and each of these marketing systems is made up of some or many distribution channels. Thus, the marketing system of agricultural products in Korea could be affected by the change in the distribution technology of each channel. Notwithstanding, agricultural marketing system could also be influenced by the change in environment surrounding the system.

The purpose of this article is to describe the trends in the agricultural marketing system, to explain and prospect the changes in marketing environment, and to present policy directions in order to adapt the system to the changing environment.

The next section outlines the present status and trends of both consumption and marketing of food. Section 3 explains the changes in the environment of agricultural marketing, introducing the market development driven by the information technology, and points out what the bottlenecks for efficient marketing are. Section 4 provides a brief

* The authors thank an anonymous referee for giving them useful comments.
** Senior Fellow · *** Research Associate, Korea Rural Economic Institute, Seoul, Korea.

issues, and suggests policy directions for improving the present agricultural marketing system. The last section completes with summary and conclusion.

II. Trends in Food Consumption and Marketing

1. Food Consumption Patterns

Food consumption in Korea has undergone drastic changes since the late 1970s mainly due to a rapid increase in national income. In 1995, the average Korean caloric intake was 2,980 kilocalorie per day. The equivalent figure was 2,189 Kcal in 1965, 2,390 Kcal in 1975, and 2,687 Kcal in 1985. Between 1980 and 1990, the Korean daily calorie intake increased by about 15 percent.

Underlying this change in calorie intake by Korean is sizable decline in the consumption of rice, barley, potatoes, and other carbohydrate grains and sharp increase in the consumption of fruits, vegetables, and meat. (Table 1) summarizes the fact. For rice, there has been a decline from 132.4 kilograms per capita in 1980 to 104.9 kilograms in 1996. Contrastingly, fruits consumption has continued to increase, from 21.8 kilograms per capita in 1980 to 52.3 kilograms in 1996.

TABLE 1 Per Capita Consumption of Each Food Group

Unit: kg

Year	Grains	Rice	Vegetables	Fruits	Meat
1970	219.4	136.4	59.9	13.1	5.2
1980	195.2	132.4	120.3	21.8	11.3
1990	167.0	119.6	132.6	41.0	19.9
1996	160.4	104.9	145.7	52.3	28.7

Source: Ministry of Agriculture and Forestry(MAF), *Major Statistics of Agriculture and Forestry*, each year.

While meat consumption has increased from 11.3 kilograms per capita in 1980 to 28.7 kilograms in 1996. As incomes have grown, Korean diet has also become westernized. The pattern of Korean food consumption has shifted from grains such as rice to a more diversified diet with plenty of livestock products, vegetables, and fruits.

With more women in the labor force and other lifestyle changes, there have been conspicuous increases in the use of processed foods and in dining out. (See Table 2). Looking at the 1996 figures, fresh foods accounted for 42.6 percent of food expenditures while processed foods were 23.8 percent and dining out was 33.6 percent. Convenience and quick preparation have become more important, increasing the prevalence of processed foods and dining out.

TABLE 2 Ratios of Food Expenditures by Type of Expenditure

Unit: won

Year	Expenditures on Food and Beverages	Expenditures on Perishable Food	Expenditures on Perishable Food	Expenditures on Eating Away from Home	Expenditures on Other Services
1970	12,120	9,698	2,186	230	6
1975	28,478	22,192	5,727	559	168
1980	77,527	56,268	18,388	2,871	273
1985	118,898	78,191	31,578	8,872	257
1990	219,539	115,972	58,306	44,844	417
1995	364,100	150,400	97,500	115,700	500
1996	269,000	172,500	96,500	136,500	600

Source: National Statistical Office of Korea, *Annual Report on the Family Income and Expenditure Survey, each year.*

As quantitative sufficiency has been achieved, consumers have increasingly emphasized taste, freshness, healthfulness, safety, and other quality issues. The Korean consumers are obviously interested in buying food for less, but the Korean consumer choice is driven not only by price but by content, appearance, and other quality considerations. The emphasis on health and safety has led to the growth of a niche market for organic foods which are grown using little or no pesticides or other chemicals as well as for "healthy" foods that are low in salt and fat content. These preferences apply to domestically grown foods and imports alike, and producers ignore this trends at their peril.

2. Food Distribution System

Korea has a complex distribution system for foodstuffs. A high percentage of Korean retailers are small mom-and-pop stores. In 1994, there were about 301,136 retail outlets in Korea (Table 3). On average, each outlet has 2 employees, 35.8 square meters of floor space, and 95.9 million wons(121.2 thousand dollars) of annual sales, which is calculated from National Statistical Office of Korea, 1994 annual report on the wholesale and retail trade survey, 1995. Among retail outlets general stores are 16,718 and specialty stores are 284,418.

TABLE 3 Comparison of Food Retailers and Wholesalers in Korea, Japan, and the United States

	Establishments	Sales per Establishment	Employees per Establishment
	number	$ mil.	number
Retailers			
Korea(1994)	301,136	121	2.0
Japan(1991)	622,751	467	4.1
U.S.(1992)	180,568	2,044	16.0
Wholesalers			
Korea(1994)	29,590	796	6.1
Japan(1991)	99,987	7,635	9.8
U.S.(1992)	54,425	11,786	16.9

Source: National Statistical Office of Korea, *1994 Report on the Wholesale and Retail Trade Survey*, 1995.
Minstry of International Trade and Industry of Japan, *1991 Report on Business Statistics*, Japan.
U.S. Department of Commerce, *1992 Census of Wholesale Trade*, USA, 1994.

The average size of food and beverage stores in Korea is quite small compared to those in Japan and the United States. In terms of sales, the average size of retail food stores of Korea is one fourth of Japanese retail food stores and one seventeenth of the American ones. In terms of employees, the average size of retail food stores of Korea is almost half of Japanese food stores and one eighth of the American food stores. In the United States and other developed western countries, the giant supermarket chains account for more than half of food sales. In recent years, well-equipped supermarkets and large-scale retailers are increasing in large cities of Korea.

The situation of wholesaler food stores is similiar to that of retailer food stores in Korea in the sense that operating scale is small compared to that of Japan as well as of the United States.

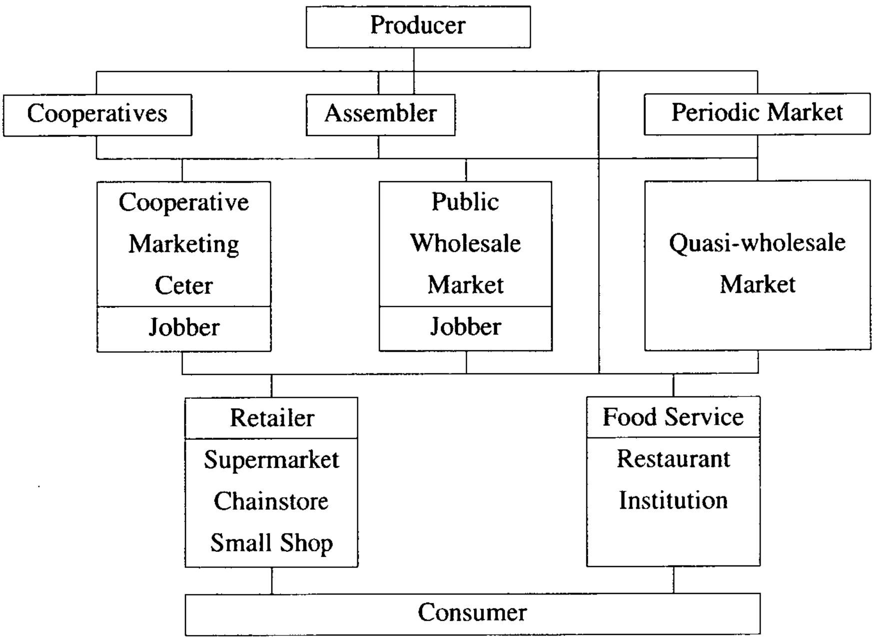
The main reason small retailers have such a prominent position seems to be that the Korean population is relatively concentrated and that motorization still lags behind the other developed countries. Having many small stores with a full line of merchandise vastly complicates the supply logistics, and Korea, thus, has primary wholesalers and secondary wholesalers as products work their way through the distribution chain.

Marketing stages vary depending on the commodity, time, and region. The different agricultural products have different marketing channels, each being composed of several distribution channels. The agricultural marketing system in Korea consists of several sorts of marketing subsystems and each of these subsystems is made up of some or many distribution channels.

The marketing system for agricultural products such as fruits and vegetables is best characterized by wholesale market. The volume of the fruits and vegetables through wholesale market are much larger than that of other agricultural products like meat. In this article we put an emphasis on the marketing system for fresh produce, because wholesale markets play an important role in the marketing system and the status of wholesale markets is critical in Korea as far as agricultural distribution policy is concerned.

The main marketing channel for fresh produce in Korea is : producers - assemblers or cooperative associations - primary wholesalers (wholesale companies) - secondary wholesalers (jobbers) - retailers - consumers.

FIGURE 1 Marketing Channel of Agricultural Products



Korea has three types of institutions for wholesaling agricultural products: public/legal wholesale markets, cooperative marketing centers, and quasi-(or illegal) wholesale markets. In 1996, there were totally 196 wholesale institutions in Korea : 48 public/legal wholesale markets, 103 cooperative marketing centers, and 45 quasi-wholesale markets. Quasi-wholesale markets consist of groups of commission agents and are not authorized by law as a wholesale market. Nevertheless, quasi-wholesale markets have partially performed, until now, wholesaling functions in agricultural distribution as the *authorized* wholesale markets do.

The total marketed volume of fruits and vegetables amounts to 12.7 million tons in 1995 in Korea. Of the total marketed volume of fresh produce, 42.7% is marketed through formal (in the sense of "legally approved") wholesale markets : 32.5% is through public wholesale markets, 3.6% is through other legal wholesale markets, and 6.6% is through cooperative marketing centers (Table 4).

TABLE 4 Percentage of Produce and Meat Marketed through Formal Wholesale Markets

Unit: %

	Korea		Japan	
	1987	1996	1985	1993
Produce	n.a.	42.7	85.3	80.0
Meat				
Beef	41.0	26.1	34.8	22.7
Pork	42.6	27.2	17.0	12.1

Note: *Formal* wholesale markets include public wholesale markets, other legal wholesale markets, and cooperative marketing centers. The figures do not include the share of volumes marketed through quasi-wholesale markets.

Source : Huh et. al.(1997), *New National Marketing Master Plan Study*, KREI.
Minstry of Agriculture, Forestry and Fisheries of Japan, *Status and Issues of Food Marketing*, Japan, each year.

This fact allows to make an inference that the public wholesale markets were made to play a very important part in the distribution system for produce in recent years in Korea, because there was no public wholesale market in Korea until the Garakdong wholesale market was constructed in 1985 with the financial support of the government.

The role of public wholesale market is expected, for the time being, to increase as new public markets are constructed. In Japan, the role of wholesale markets are very important in distributing fresh produce. The share of the volume marketed through wholesale markets had increased until the early 1980s. After the number of Central Wholesale Markets, which is bigger than other types of wholesale markets in Japan, reached the maximum in early 1980s, the share decreased. The share is, however, still on the level of 80% of the total marketed volume of fresh produce.

Meat depends only partially on wholesale markets for its distribution and less in Korea as time proceeds as does in Japan. The marketing system for meat is extremely complex and is composed of various types of distribution channels. As imports increase the role of wholesale markets is expected to decrease, since imported products pass through channels other than wholesale markets.

The marketing margin[1] of agricultural products in Korea is generally big as in the other countries. For example, the ratios of vegetables such as cabbages and white carrots reach 70-80% while those of fruits are 30-40%.(Table 5) In particular, the profit share out of the total margin is relatively high.

TABLE 5 Composition of Marketing Margin of Major Agricultural Products

Unit : %

		Summer Cabbage	Autumn Cabbage	Red Pepper	Garlic	Onion	Cucumber	Apple	Pear
Marketing Margin Ratio		75.4	81.8	24.3	50.0	72.7	39.7	33.3	35.0
Composition of Margin	Cost	29.4	35.1	35.9	22.4	42.7	32.5	43.8	36.3
	Profit	70.6	64.9	64.1	77.6	57.3	67.5	56.2	63.7
	Assembling	24.4	44.4	12.8	33.2	12.0	23.7	50.2	42.9
	Wholesaling	44.9	21.6	43.6	33.4	46.8	15.4	19.8	14.3
	Retailing	30.7	34.0	43.6	33.4	41.2	60.9	30.0	42.8
Year		1995	1995	1995	1995	1994	1994	1993	1993

Source: Agricultural and Fishery Marketing Corporation, *Marketing of Major Agricultural Products*, each year.

Profits rates vary in different food industries, depending on their competitive structure and degree of product differentiation. Profits are not a simple indicator of market performance. High or rising profits may reflect superior management or efficient operation, but they may also result from such market imperfections as concentration, product differentiation, and barriers to entry. The high profit share of total margin of fresh produce may be accounted for the low efficiency due to the small scale of middlemen and the incomplete market structure resulting from the low transparency in trade.

[1] The marketing margin refers to the difference between prices at different levels of the marketing system.

III. Challenges and Prospects

1. Changing Environment

The food system accounts for about 14 % of the total value added in Korea. Consumer trends have important implications of the food system. The food industry in Korea is increasingly driven by consumers and retailers rather than by producers. The emphasis is shifting production to marketing and consumption. The basis of successful marketing is understanding the ultimate customer. A knowledge of changes in major consumer trends and an understanding of their marketing implications become crucial.

The demographic characteristics of the Korean population are undergoing major changes. The basic factor for food demand is the declining rate of population growth. The population is growing older, living longer, residing in smaller households. One of the major social and economic trends of the last decade in Korea is the increased participation of women in the labor force. Women in the labor force face the greatest time pressures because not only do they work outside the home, but they also continue to do most of their work within the home. Therefore, since there is increasing willingness to pay more to buy convenience and service, convenience is now one of the most important attributes of food products. Our eating patterns are also changing. Fewer and fewer consumers are having three regular meals a day. Increasingly, different members of the same family eat quite different things.

The imports of agricultural product have been increasing dramatically after the UR agreement and the establishment of the WTO. Real imports, calculated by dividing the amount of total imports with import price index, expanded 19.3% and 12.2% in 1995 and in 1996, respectively, while those increased only 0.7% and 1.4% in 1993 and in 1994, repectively (Table 6).

As income increases and food imports expanded rapidly, food safety issues have become a major concern for Korean consumers as consumers of other industrial countries. Although there is no clear scientific consensus on the health risk, the public often reacts strongly. The resistance to changing unhealthy food habits suggests there is market potential for food products that have altered nutritional

TABLE 6 Imports of Agricultural Product

Unit: $ mil., %

	1992	1993		1994		1995		1996	
			Change rate		Change rate		Change rate		Change rate
Total imports	6,067	7,269	19.8	7,988	9.9	9,677	21.1	10,940	13.1
Import price index	1.00	1.19		1.21		1.31		1.32	
Real imports	6,067	6,108	6,108	6,192	1.4	7,387	19.3	8,287	12.2

Source: MAF, *Major Statistics of Agriculture and Forestry*, each year

characteristics but retain quality attributes. Many people would like to eat a healthier diet without fundamentally changing their consumption pattern.

The food retailing industry[2] are responding to these consumer trends by changing quite rapidly. There is a trend towards fewer and bigger supermarkets. With fewer smaller and larger supermarkets, the number of smaller convenience stores begin to increase. Conventional supermarkets are being replaced by discount stores or wholesale clubs.

Price and nonprice competition in food retailing has resulted in pricing strategies and merchandising practices designed to differentiate the stores and attract customers. Pricing strategies used include market basket pricing and variable price merchandising

[2] A food store can be either a grocery store or a specialized food store. A grocery store sells many different foods as well as nonfood items; a specialized food store sells food from only one category, such as meat, seafood, or dairy products(Kohls & Url(1990)).
Grocery stores are classified as supermarkets, convenience stores, or superettes. Supermarkets are cash-and-carry, self-service and partial-service food outlets offering a full line of food and nonfood items in a large number of departments. Convenience stores are small and compact and offer a limited number of convenience food and nonfood items along with fast foods. They are open long hours, are easy to access, and feature quick service. Superettes are similar to supermarkets but they include general food stores, food cooperatives, health food stores, roadside and farmer's markets, and mom-and-pop stores.

(Kohls & Uhl(1990)). *Market basket pricing* provides the retailer considerable latitude in pricing any one food[3]. *Variable-price merchandising* is another retail pricing strategy that reduces the dependence of retail rices on farm or wholesale prices[4].

Consumer driven changes work their way through the food system from the retailer to the wholesaler and back to the producer. Agricultural producers need to help processors, distributers, and retailers meet the demands of consumers for fresh, safe, nutritious, convenient, and high-quality food products. Consumers increasingly demand services and choices in the supermarket. Convenience for consumers is one of the major goals of food retailing. Convenience has two components ; ease of purchase and ease of preparation, both of which are important in the products and services offered by retailers.

The governmental restrictions on the number and size of stores have been alleviated in recent years in Korea. The Korean government has gradually liberalized foreign direct investment in distribution industries. The existence of foreign distributing companies is not yet significant since there still remain restrictions on foreign investment and other entry barriers, such as consumer's behavior and trading customs which are different from those of the Western countries (Kim(1995)).

As foreign direct investment in distribution industries is liberalized, new forms of retail stores have been introduced in recent years (Table 7). The number of convenience stores increased sharply and shall increase further in the near future. In addition to convenience stores, several kinds of new formats of stores are introduced mostly in large cities: discount stores, super center, hypermarkets, and wholesale clubs.

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[3] Although total won sales must cover retail operating costs and the costs of purchased merchandise, there is no requirement that each retail food price must follow wholesale or farm prices. One store manager may elect to feature low-priced dry groceries and place a larger, compensating profit margin on meat or produce.

[4] Retailers use selective price cuts to differentiate their stores and attract consumers. The weekend special is a example of this pricing strategy designed to build store traffic. Chicken, coffee, bread, milk, and other popular items are frequently priced to attract price-conscious shoppers. Retail food prices, therefore, are typically based more on consumer demand and strategy than on the price of farm commodities.

TABLE 7 New Store Formats, 1996

Type	Characteristics	No. of stores	Representative firms
Discount Store	· Strong purchasing power, low price-high turnover · Self-service	15 firms, 29 shops	E-mart, New-mart, 2001 Outlet, Grandmart, Depot
Super Center	· Discount store + Food department · Sales floor: 1,500~3,000 pyong	1 firm, 2 shops	Makro
Hyper-market	· More than 50% of food · Sales floor: above 5,000 pyong	1 firm, 3 shops	Carrefour
Wholesale Club	· Membership · Lower price than discount store · Located at the outskirts of large cities	3 firms, 14 shops	Price Club, Kims Club, Delta Club
Total no. of stores	20 firms, 48 shops		

Source: Ministry of Finance and Economy, 1996.

As many Koreans increasingly dine out, the food service industry grows in parallel. The food service industry in Korea has been the target of foreign investors. Foreign investors include Denny's, Kentucky Fried Chicken, Mac Donald's, TGI, and so on.

New formats of stores and distribution firms controlled by foreigners tend to purchase much of its raw materials, mainly agricultural products, from abroad to acquire cheap and stable ones, which is known as *global outsourcing*. These new firms price each food product as a component of a total mix of foods offered by the store in order to differentiate the stores and attract customers : *Market basket pricing* and *Variable-price Merchandising*. Mix pricing and merchandising raise serious issues. Selling prices are not related to purchase prices any more since these mixed strategies break the link between retail and farm prices. The advent of new store formats and the increase of foreign direct investment in distribution industries imply the increasing leadership of these firms in determining conditions of whether to purchase agricultural products from farmers or wholesalers.

2. Marketing in the Information Revolution

The world is now facing the age of information. The striking development in information technology is changing food marketing system greatly in the developed countries. The wave of "marketing revolution" are expected to approach the other less developed countries like Korea in the middle of the next century.

Blattberg and Glazer(1994) classify market phase into five stages and characterize the role of marketing by each stage. (Table 8) summarizes them.

The Phase I, *Pre-Market Stage*, is what is often referred to as a "Robinson Crusoe" economy, characterized by self-sufficiency on the part of individuals and/or small social groups and the lack of meaningful levels of exchange. By definition, as an activity "marketing" does not exist in this phase.

The Phase II, *Undifferentiated "Products"* in *Decentralized Markets*, is the beginning of specialized "production" - and hence, the distinction between "firms" and "consumers" - and the emergence of opportunities for exchange in which "buyers" and "sellers" seek each other out. Within such a structure, the role of marketing is to facilitate the exchange process by helping buyers and sellers identify each other.

TABLE 8 Role of Marketing in Phases of Market Development

Market Phase	Role of Marketing
I. Pre-Market Stage	"Robinson Crusoe"
II. Undifferentiated Products/ Decentralized Markets	Marketing identifies buyers and sellers
III. Undifferentiated Products/ Centralized Markets	Efficient distribution; price set by market; beginning of advertising - to generated awareness/primary demand
IV. Differentiated Products /Centralized Markets	Efficient distribution of specialized markets; target marketing based on customer needs; brand advertising
V. Undifferentiated Products /Decentralized Markets	Shift from one-way communication to two-way; marketing manages information flows between firm and customers

Source: Blattberg, R.C. & R. Glazer(1994)

The Phase III, *Undifferentiated Products in Centralized Markets*, means the formalization and institutionalization of exchange through efficient distribution (i.e., the centralized market) and price mechanisms. Here, marketing serves to inform buyers about the existence of sellers and their products(i.e. advertising), thus generating "primary" demand and leading to intercommodity competition.

The Phase IV, *Differentiated Products in Centralized Markets*, is the situation, in which the identification of heterogeneity in buyers' tastes leads to the development of "brands" or intracommodity (i.e. within a product category) competition and the generation of "secondary" demand. The role of marketing is to manage competitive strategy, through "segmentation" and "positioning" - i.e. target marketing based on market research to identify customer needs, efficient distribution to targeted markets, brand-level advertising, and so forth.

The last phase, *Differentiated Products in Decentralized Markets*, will be the consequence of the information revolution, in which the firm can identify individual buyers who continually provide it with information about their needs and preferences, thus enabling the firm to develop and provide specific products for them. In this environment, the role of marketing is to manage the simultaneous flows of information between a firm and its customers.

Korea is considered to be in the Phase III of market development, that is, the stage that undifferentiated products are traded through centralized markets. With the rapid growth of information technology, she is anticipated to move into the next stage of market development, Phase IV, in the middle of the next century.

According to Blattberg and Glazer, the driving force throughout the revolution of markets and marketing activity in Phase IV will be *efficiency* : specialization of economic agents into producers and consumers and the development of centralized markets to facilitate the exchange process and the delivery of goods and service from producers to consumers. Whereas the discovery of diverse consumer tastes leads to product differentiation and thus a degree of market fragmentation, the focus is still on the efficiencies that come with market centralization - now in the form of segments, or homogeneous subgroups within a larger population.

In the course of market evolution and the development of evermore sophisticated marketing activity, information plays an increasingly important role ; but, in the service of specialization and greater efficiency, the patterns of information flow between producers and consumers is also increasingly sequential.

3. Bottlenecks of Efficient Food Distribution

In Korea, the following points would be the cause of less efficiency in the wholesale marketing of agricultural products and, thus, would contribute to higher marketing costs and margins.

3.1. Small-scale Operation in Producing Area

The main problem in food marketing lies in the smallness of scale in operation. The smallness of scale in marketing is due to the smallness of scale in production and the small scale operation in marketing is one of the reasons generating high marketing cost.

According to *1995 Agricultural Census*, the average planted areas of vegetables are only 0.03-0.38 ha, as shown in (Table 9). For vegetables such as radish and Chinese cabbage, approximately 95% of farmhouseholds harvests field areas below 0.1 ha and the average harvested acreage per farm is only 0.03-0.04 ha, while for onion, watermelon, and red pepper the average planting area is 0.1-0.4 ha. The average planted area of all fruits is 0.58 ha, which is a little larger than that of vegetables.

The small-scale production makes the shipping scale small, increases marketing cost per unit, and deters standardization (by grading). Thus, small-scale farmers may enjoy scale economy by marketing their products corporatively. Nevertheless, corporative marketing is not activated in the shipping points. Of vegetables 65.7% is marketed individually and thus only 30% is marketed corporatively, while half of total fruits marketed is shipped out in a corporative manner. The low ratio of corporative marketing in vegetables is accrued to the low level of specialization of production.

TABLE 9 Number of Farmhouseholds and Harvested Acreage of Vegetables by the Harvested Field Size, 1995

Name	No. of Farmhouseholds by the Harvested Field Size							Harvested Acreage	Harvested Acreage per Farm
	Below 0.1ha	0.1~0.2	0.2~0.3	0.3~0.5	0.5~0.7	Above 0.7 ha	Total		
Autumn Radish	687,513 (0.96)	10,660 (0.01)	2,943 (0.00)	5,622 (0.01)	2,039 (0.00)	4,105 (0.01)	712,882 (1.00)	23,310 ha	0.03ha
Autumn Cabbage	737,973 (0.94)	22,612 (0.03)	7,321 (0.01)	10,690 (0.01)	3,501 (0.00)	3,810 (0.00)	785,907 (1,00)	29,915	0.04
Red Repper	706,108 (0.75)	134,090 (0.14)	37,425 (0.04)	42,491 (0.05)	12,790 (0.01)	9,804 (0.01)	942,708 (1,00)	96,467	0.10
Garlic	472,410 (0.82)	50,514 (0.09)	17,973 (0.03)	22,116 (0.04)	6,693 (0.01)	4,538 (0.01)	574,244 (1,00)	44,811	0.08
Onion	51,415 (0.63)	12,649 (0.16)	5,751 (0.07)	7,436 (0.09)	2,348 (0.03)	1,670 (0.02)	81,269 (1,00)	10,852	0.13
Green Onion	140,104 (0.90)	7,434 (0.05)	2,680 (0.02)	3,596 (0.02)	1,165 (0.01)	1,453 (0.01)	156,432 (1,00)	8,575	0.05
Water-melon	17,510 (0.36)	7,926 (0.16)	4,965 (0.10)	8,377 (0.17)	3,269 (0.07)	6,196 (0.13)	48,603 (1,00)	18,581	0.38
Musk Melon	19,078 (0.77)	2,825 (0.11)	1,064 (0.04)	1,398 (0.06)	359 (0.01)	166 (0.01)	24,890 (1.00)	2,193	0.09

Note: Figures in the parentheses are the percentage ratios of number of farmhouseholds.
Source : MAF, *1995 Agricultural Census*, 1996.

TABLE 10 Number of Farmhouseholds Growing Fruit Trees and Their Acreage by Field Size, 1995

Name	No. of Farmhouseholds by Field Size						Growing Acreage	Acreage Growing Acreage
	Below 0.1 ha	0.1~0.5	0.5~1.0	1.0~2.0	Above 2.0 ha	Total		
Apple	2,279 (0.03)	35,928 (0.50)	21,302 (0.30)	9,615 (0.13)	2,653 (0.04)	71,777 (1.00)	48,720	0.68
Pear	2,291 (0.09)	13,664 (0.55)	5,315 (0.21)	2,738 (0.11)	1,013 (0.04)	25,021 (1.00)	15,124	0.60
Peach	3,326 (0.13)	16,816 (0.67)	3,931 (0.16)	836 (0.03)	101 (0.00)	25,010 (1.00)	8,937	0.36
Grape	2,706 (0.06)	32,555 (0.67)	10,372 (0.21)	2,473 (0.05)	198 (0.00)	48,304 (1.00)	20,407	0.42
Sweet Persimmon	12,404 (0.28)	25,761 (0.57)	4,465 (0.10)	1,563 (0.03)	639 (0.01)	44,832 (1.00)	14,935	0.33
Orange	473 (0.02)	8,686 (0.34)	8,936 (0.35)	5,820 (0.23)	1,525 (0.06)	25,440 (1.00)	22,816	0.90
All fruits	25,548 (0.10)	131,883 (0.52)	60,236 (0.24)	7,338 (0.03)	7,338 (0.03)	252,735 (1.00)	145,413	0.58

Note: Figures in the parentheses are the percentage ratios of number of farm households.
Source : MAF, *1995 Agricultural Census*, 1996.

TABLE 11 Sales Ratios of Produce by Type of Shipping, 1997

Unit : %

	Individual Shipping				Joint Shipping				Other	Total Sum
	Assem-bler	Wholes. Market	Others	Sum	Jakmok-ban	Corpor-ation	Agri. Coop.	Sum		
Vegetables	38.0	14.2	13.5	65.7	9.4	2.7	18.4	30.5	3.8	100.0
Leafy&Roots	50.6	14.3	8.3	73.2	5.1	2.6	14.5	22.2	4.6	100.0
Fruit	21.0	16.2	6.0	43.2	21.5	6.0	28.6	56.1	0.9	100.0
Flavour	41.8	13.2	18.8	73.8	4.8	1.1	15.0	20.9	5.3	100.0
Fruits	16.4	18.8	10.5	45.7	9.8	4.7	33.6	48.1	6.2	100.0

Source : Huh et. al.(1997), *New National Marketing Master Plan Study*, KREI, p44.

3.2. Standardization

Uniform food quality grades and standards can contribute to both operational efficiency and pricing efficiency. By making possible the sale of farm products by sample or description, thus generating more accurate market information, the use of uniform food grades and standards lowers buyer and seller search and transaction costs and fosters a more efficient price discovery process.

Standardization and grading has been one of the most important issues to improve food distribution system in Korea. The Korean government has endeavored to elevate the level of standardization and has seen considerable performance.

(Table 12) summarizes the packaging ratios of agricultural products in 1996 in Korea. The average packaging ratios for pulses and potatoes, fruits, and flowers are 89.2%, 90.3%, and 88.9%, respectively, and thus are seemed to have reached a fairly high level. The average packaging ratios of vegetables and specialties are 42.9% and 41.8%, respectively, which is in the low level. The material used for packing is changed from a wooden basket, a paper bag, a sack, or a wooden box into a corrugated box which is convenient and good for product protection.

TABLE 12 Packaging Ratios of Agricultural Products, 1996

	Number of Respondents	Packing Ratio
Pulses and Potatoes	93 persons	89.2%
Vegetables	1,141	42.9
Leafy & Roots	272	22.4
- White cabbage	116	3.4
- Radish	61	3.3
Fruit	300	75.3
Flavour	493	40.0
Fruits	382	90.3
Specialties	141	41.8
Flowers	18	88.9

Source : Huh et. al.(1997), *New National Marketing Master Plan Study*, p49.

Grade strangulation for agricultural products is more difficult to conduct than the standardization of packaging, and the level of grade strangulation is therefore low in Korea. Only 18% of fruits and 9% of vegetables are marketed according to the standards designated by the government.

TABLE 13 Standardized Shipping Ratios of Produce, Sept. 1996

Unit: %

Vegetables			Fruits		
	Nationwide	Garakdong		Nationwide	Garakdong
Shipping Ratio	9.4	9.7	Shipping Ratio	18.9	18.5

Source : MAF, Feb. 1997.

IV. History and Direction of Agricultural Marketing Policy

The food industry is among the most highly regulated of all comsumer product industries because of its importance to consumers, farmers, and society in general. Many food industry regulations stem from consumers' concerns with the wholesomeness, quality, and cost of the food supply and from the efforts of farmers and consumers to maintain a workable competitive food marketing system.

Marketing of agricultural commodities as well as processed forms of foods are greatly improved by governmental facilitating services. Because these governmental services influence the overall efficiency of the food marketing process, they are frequently provided by the government agencies at public expenses. Most of these governmental marketing services are in three areas : collection and dissemination of market information, assistance to actual marketing operations (as in the establishment and monitoring of grades and grading practices), and market surveillance ensure fair competition and trade practices. Such services may be provided by industrial associations; but in agricultural marketing they are generally government functions.

Wholesale marketing has been the main concern of distribution policy since it constitutes a main body of food distribution system. Wholesale markets for agricultural products in Korea can be classified into three types : public/legal wholesale markets, cooperative marketing centers, and quasi-wholesale markets. Let us examine first the brief history of wholesale market policy.

The first law on the wholesale marketing for agricultural products in Korea is the *Central Wholesale Market Law* established in 1923 by the colonial government of Japan. This law was repealed in 1951 by the Korean government to legislate a new law, which had the same name as before. This new law, however, cannot activate the distribution of agricultural product in these days.

The agricultural wholesale markets in Korea are now governed under the *Law of Marketing of Agricultural and Marine Products and Price Stabilization*, which was enacted by the Korean National Assembly in 1976. The *Law of Marketing of Agricultural and Marine Products and Price Stabilization* specifies the adjustment and control of production and marketing of agricultural and marine products, the opening of the agricultural wholesale markets and the cooperative marketing facilities, the establishment and management of the price stabilization fund, and measures for improvement of the agricultural marketing system.

Under the law, the Garakdong Wholesale Market of Agricultural and Marine Products was opened in June 1985 in Seoul, which is the first public wholesale market in Korea. The Seoul City Government appointed five primary wholesale companies. Transactions in the marketplace are governed by the following principles : that commodities are to be sold at auction, that these sales would take place on consignment, that auction houses cannot refuse to put up any received food for auction, and that all sales have to be on-the-spot transactions.

In public wholesale markets, a few primary wholesalers (wholesale companies) and many secondary wholesalers(jobbers) exist, but only primary wholesalers receive farm products on consignment from growers and/or shippers and offer them for auction. The secondary wholesalers are forbidden to receive farm products. At the auctions, the sellers are the primary wholesalers, and buyers are secondary wholesalers and other authorized jobbers and/or retail shop owners. However, even in the authorized wholesale markets, illegal jobbers often act as wholesalers or as retailers.

Wholesale markets of agricultural products in the developed Western countries have a declining role as a national center for physical distribution since the 1980's. However, they continue to perform a pricing role, and the governments have been strengthening the role by assisting Market News. In these countries, large supermarket firms obtain a large volume of farm products by buying directly from producers and/or shippers in distant producing areas, and distribute them directly to their retail stores or to chain stores. Large supermarket firms are now organizations for the procurement of farm products, transportation and food retailing integrated into one firm. They replace the function of wholesale markets. With this system, marketing cost and margins are reduced and it brings low prices to consumers.

In 1994, the Korean government issued a general and widespread plan Marketing Reform Policy to improve agricultural marketing in several ways. The plan stressed on improving marketing efficiency and the considerable improvement in marketing channels. For example, a compulsory auction system was implemented in the public (government-financed) wholesale markets and some of the remaining government restrictions were removed. In addition, direct transaction from production to consumption area was carried out with some commodities. By 1998, the government will establish 34 public wholesale markets across the nation. Some amendments of the *Agricultural Marketing Improvement and Price Stabilization Act* were included in the plan.

The Korean government has established a plan for investing about 1.46 trillion won(1.8 billion dollars in 1995 constant price) in constructing marketing facilities, that is, shipping and packing facilities in producing areas and distribution facilities in urban areas. When constructing marketing facilities, the central government is supposed to subsidize fifty percent of the total construction costs. Major plans are as follows (as summarized in Table 14) : in producing areas, there is a plan to construct 4,000 produce shipping points and 160 produce packing houses. It is also planned that more public wholesale markets and distribution centers in urban areas will be contructed. Mayors of cities responsible for establishing wholesale markets directly invest in the construction of such markets. Total of

16 public wholesale markets were opened by 1997. The number of public wholesale markets will be 34 in the near future, covering most of urban areas in Korea. The government also plans to construct a number of marketing facilities for livestock and marine products.

TABLE 14 Investment Plan for Constructing Food Marketing Facilities

	Planning Period	Planned	Under Construction	Achievement Ratio
	year	number	number	%
Producing Area				
Shipping Facility	94~1997	4,000	3,032	76
Packing House	95~2004	160	49	31
RPC	91~2004	400	220	55
Livestock Processing Complex	94~2000	10	10	100
Processing Industry	89~2004	2,000	1,231	62
Urban Area				
Wholesale Market	84~1998	34	33	97
Cooperative Marketing Center	~1998	67	64	95
Physical Distribution Center	95~2004	16	8	50

Source : MAF

In addition to the physical construction of markets, various institutional and administrative procedures are being amended to improve market efficiency. For example, a compulsory auction system for major products was introduced in 1991 despite of the strong opposition from market employees. An overall review of marketing regulations, licensing, and tax policies is currently under way and will be adjusted to encourage the timely flow of agricultural products through the newly developed marketing channels. A nationwide marketing information system was established in 1991 in order to distribute information about transaction rapidly. Additional measures include standardization of the transactions, auction units, and coding for major crops.

Caveats should be given in considering agricultural marketing policies. We deliver some comments on the cost of government involvement in marketing and the issue of whether the benefits justify these costs. According to Branson and Norvell(1983), costs of government marketing services can assume at least three following forms : (i) the direct cost of maintaining staff and services for regulatory activities ; (ii) the added cost to marketing firms of complying with regulations ; (iii) the opportunity cost to consumers or other economic entities of any limitation on economic activities entering the market because of exclusions on policy grounds.

For example, the construction of marketing facilities will affect food distribution industries. Fist of all, the importance of public wholesale markets is expected to increase. Agricultural cooperatives will be more active in food marketing than ever since they plan to play a major role in constructing marketing facilities. However, as Kim insists, the emphasis on agricultural cooperatives in food marketing may impede the growth of private marketing firms, such as general-line wholesalers and shippers. The government's plan may also impede the direct marketing of agricultural products between local shippers and wholesalers or superchains since the government overemphasizes the role of the public wholesale markets.

As we have reviewed, the core subject of agricultural marketing policy in Korea has been on establishing fair transaction practices and enabling large-scale distribution. This has been carried out mainly by constructing public wholesale markets and by introducing auction system.

The 21st century is the age of information. What leads the marketing revolution in the next century will be "information revolution" as mentioned before. Therefore, the basic direction of agricultural marketing policy in Korea should not be only on establishing fair transaction practices but on building efficient marketing system in the age of information. The agricultural marketing policy for the next century should include the following objectives : establishment of environment enabling transactions by descriptions and reduction of marketing margin through networking.

To establish environment that will enable transaction by descriptions, the followings are required to be conducted :

- to enlarge the current production scale and to enhance

bargaining power of growers by shipping corporatively
- to foster standardization and branding
- to establish cold-chain system
- to build nationwide information network
- to establish "transaction by credit" practices

The ultimate objective of efficient marketing is in heightening the quality of marketing service and in decreasing marketing margin. Since marketing margin is composed of both marketing costs and commercial profits, to decrease marketing cost in the age of information, network between marketing institutions should be constructed. Network between the marketing institutions in the same stage, i.e. horizontal integration[5] by network, may foster economies of scale and/or economies of scope by combining similar marketing functions and decisions at the same market level into a single firm. Network between the marketing institutions through different stages, i.e. vertical integration[6] by network, may enjoy linkage economies by centralizing vertically related marketing functions and decisions either by contract or by ownership.

Marketing cost can also be lowered by fostering mechanization and automation. To accelerate mechanization and automation, standardization is prerequisite in the following areas : encoding of commodities, facilities and equipments for physical distribution, trade document, and protocols for telecommunication. To reduce commercial profits which consist the other part of marketing margin, it is required to establish fair transaction practices and to promote autonomous competition. In order to establish fair transaction practices and to promote autonomous competition, transparency in transaction should be ensured. Among effective measures to improve trade transparency are standardization, branding, and sufficient market information.

[5] *Horizontal integration* occurs when a firm gains control over other firms performing similar activities at the same level in the marketing sequence. The retail chains provide an example(Kohls & Url).

[6] *Vertical integration* occurs when a firm combines activities unlike those it currently performs but which are related to them in the sequence of marketing activities. Such integration is illustrated by the meat packer who decides to reach both backward toward the producer and operate his own livestock buying points in the countryside and forward toward the consumer and operate his own meat wholesaling establishment(Kohls & Url).

V. Summary and Conclusions

Korean agricultural marketing system is a very complicated one. The agricultural marketing system in Korea consists of several sorts of marketing subsystems and each of these subsystems is made up of some or many distribution channels. The Korean agricultural marketing system has undergone considerable changes since the 1980s. Underlying the change in agricultural marketing, are the changes in food consumption, the changes in food imports, and the changes in purchasing pattern of food demanders. Due to a rapidly growing income, the Korean diet has been westernized. Koreans consume much more produce and meat while they consume less grains than before. Korean consumers prefer increasingly convenient foods than the traditional ones. They dine out more than ever. They seek for food of varieties and quality.

The food distribution industry has been one of underdeveloped industries in Korea. The average size of food stores is very small compared to that of Japan as well as to that of the United States. The structure of food distribution industry has begun to change in Korea by the advent of stores of new formats, such as discount stores and wholesale clubs. The mom-and-pop stores are being replaced by the convenience stores while traditional supermarkets are being converted into large scale superchains or discount stores. These trends are accelerated by the liberalization of foreign investment in distribution industry in 1996 and by the succeeding appearance of big foreign distribution companies in Korea. Price and nonprice competition in food retailing has resulted in pricing strategies and merchandising practices designed to differentiate the stores and attract customers. These imply that there is increasing leadership of new and bigger distribution companies in determining conditions to purchase agricultural products from farmers or wholesalers.

The information technology is accumulated in a fast manner. It derives so-called *marketing revolution*. Agricultural marketing is expected to change much, being affected by the development of information technology in the coming age. According to the classification of Blattberg and Glazer, Korean marketing is considered to be in the stage where undifferentiated products are traded through centralized markets. With the rapid growth of information technology, Korea is anticipated to move into the next stage of market development, *Differentiated Products in Centralized Markets*, in that the identification of heterogeneity in buyers' tastes leads to the development of "brands" or intracommodity competition and the generation of "secondary" demand in the middle of the next century.

Agricultural marketing policy has put much emphasis on establishing fair transaction practices and enabling large-scale distribution. This has been carried out mainly by constructing public wholesale markets under the governmental financial support and by introducing auction system.

In the coming age, the age of information, the basic direction of agricultural marketing policy in Korea should not only focus on establishing fair transaction practices but on building efficient marketing system. In that sense, the agricultural marketing policy for the next century should include the following objectives : establishment of environment that will enable transactions by descriptions and reduction of marketing margin through networking. To accomplish these objectives, standardization is a prerequisite.

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