Changing Agriculture and Vegetable Supply in China and Analysis the Drivers for Change

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Abstract

Chinese food is famous throughout the world. The China vegetable industry is a dynamic, growing horticultural sector whose products appeal to consumers. The fruit and vegetable market is the largest sector of the retail food market in China, yet barely affected by the development of new retail formats. Fruit and vegetable sales tend to be dominated by markets where local farmers supply produce direct from the field to the end consumer. A major driver for continual change in agric food business, to secure greater efficiencies, profitability and service, is the aim for much better integration in the food chain.

The aim of 'supply chain management' is to better integrate business planning, and to effectively balance supply and demand across the entire chain. It tries to bring suppliers and customers more effectively together in one coherent and integrated business process (Alexander, 2003).

In this paper, the opportunity is taken to examine some of the key drivers, in particular the importance of changing consumer lifestyles and behaviour, and their influences on food purchase. The significance of a better-integrated food chain is explored, as are proposals for successful future development of agric food business, in China. In this dissertation, the author used face-to-face interview and group interviews to get primary information.

Keywords: Changing agriculture, Vegetable supply chain, Drivers for change

1. Changing Agriculture

Chinese transition from planned economy to market economy began with the rural reform 26 years ago, which practiced the household contract responsibility system that replaced the collective production team system. From 1978 to 1984, the annual increase in agricultural output was up to 7.7%, and farmers' income obtained a rapid annual increase of 13.4%. These achievements provided confidence for the second-period market-oriented reform of urban industrial enterprises. According to statistics from National Bureau of Statistics and World Bank, in the past 26 years, Chinese economic growth rate was 9.3%, and in terms of comparable price, Chinese GDP in 2002 was 8.5 times higher than that in 1978 when the reform and opening just began. China is a country with the most rapid economic growth and a rare case of lasting rapid economic growth in the world. However, in the recent years, Chinese three-dimensional rural issues concerning agriculture, countryside and farmers gradually became more conspicuous, which aroused the full recognition in and outside the country. The 16th National Congress of the Communist Party of China held last year proposed the goal to roundly construct a well off society by the time of 2020. The consensus among people of all walks of life is that there is no national well off society.

At the beginning of this year, the Central Committee of the Communist Party of China held a Central Conference on Rural Work and mentioned that rural work is part and parcel of the Party's task. Rural issues are the toughest unsolved problem in present China.

In general discussions, agricultural issue is mentioned in the same breath with issues of countryside and farmers, however it is not so important. In the past 26 years, the growth rate in agricultural production is 6% per year. Even from the end of 1990s to the beginning of 21 century (1997-2002), at the time that people considered the three-dimensional issues (agriculture, countryside and farmers) were grave; the growth rate in Chinese agricultural production per year was still up to 5.7% averagely. Generally speaking, it is a great achievement that the growth in agricultural production is one percent higher than population growth. Such a growth rate is quite admirable in both domestic and foreign agricultural development history. The issue of countryside implies farmers' burdens and the aggravation of urban and rural income gap, which is due to the slowness in farmers' income rise (Beers, Beulens & van Dalan, 2000). Therefore, as to three-dimensional rural issues, especially a series of problems occurring since the 1990s, the key issue is the slowness in farmers' income rise. The solution of three-dimensional rural issues will be focused on sustained rise in farmers' income in the long term.

Before China entering WTO (World Trade Organisation), there were a lot of discussions in and outside China on how WTO will influence Chinese agriculture and farmers (Lin Yufu, 2003). Some viewpoints were quite pessimistic, considering that WTO would greatly impact Chinese farmers' income rise and even cause a tragedy. Because at the time that China passed the bilateral agreement with the U.S., China asked the U.S. for granting permanent normal trade relations to China supplementary. When President Clinton submitted the relevant bill to the Congress, for this supplementary term needed the permission from the American Congress, he declared that in the Sino-American negotiation on agriculture, the U.S. obtained a great success. In terms of cold war thinking, the great success of one side of the negotiation means the deadly failure of the other. Hence, the U.S. propaganda deepened the pessimistic thoughts on Chinese agricultural condition after entering WTO. The argument of this opinion is as follows: a farm in China is only as large as one acre, but in the USA, Canada and Australia, it is generally 200-300 acre. Therefore, Chinese farmers can hardly compete against farmers in the USA, Canada or Australia. Apart from that, the whole development level of Chinese agriculture is very low and the technologies and degree of mechanization fall far behind developed countries. Those scholars accordingly considered that after entering WTO Chinese agriculture will be badly impacted, and there will be a lot of bankrupt farmers in countryside. The estimation seems to be proved by political propaganda. For instance, agricultural issue was one of the toughest questions when China negotiated with other WTO member countries for the WTO agreement (Cheng, 2000).

Nevertheless, there was optimism in the discussions before entering WTO. Especially those scholars expert on agricultural issues are relatively optimistic at large. Vegetable and processed production belongs to labor-intensive agricultural products.

China lacks comparative advantages in land-intensive agricultural products. If there are no trade barriers, with the increase of Chinese citizens' income, China will import more and more land-intensive food and other agricultural products. But after entering WTO, the trade relation is relatively normal, the export channel will be relatively smooth, and therefore, the export volume of Chinese labor-intensive agricultural products, like vegetable and fruit, will consequently increase, which will be good for the structural adjustment on Chinese agriculture and the increase of farmers' income.

China has become a WTO member. The conditions reflecting in these years basically conform to optimists' estimates.

The rapidly increasing agricultural exports are mainly the labor-intensive products with Chinese comparative advantages, such as vegetable, fruit and so on. Normally, after entering WTO, since China permits food import, the import volume should consequently increase. However, first, Chinese food production is overproduced in these several years so the import desire is weak. Second, the volume of global food production decreases on account of climate factors, and hence the international food price is higher than that in China, so China will not import food. Besides, the volume of corn exports increases.

Since China has formally been a WTO member, the policies to solve Chinese three-dimensional rural issues should be concerned under the WTO frame. As it mentioned above, the core of three-dimensional rural issues is the slowness in farmers' income rise. As for how to increase farmers' income, at present, the internal academic circle and the decision-making circle achieve consensus at large that the key to increasing farmers' income is as follows: agricultural population, 72.6% of total national population, is transferred from agriculture to non-agriculture, and from countryside to city; a part of rural labor is transferred into non-agricultural urban industries, while the remains need to set about adjusting the structure of agricultural products, from land-intensive food production with low added value to labor-intensive production of vegetable and fruit with high added value; the technologies of agricultural production continuously improve and the infrastructures constantly advance (Li & Yu, 2001).

What chances will we meet, or what conditions do we need, to implement those three aspects of Chinese rural development after entering WTO? First, after entering WTO, Chinese domestic market will further integrates with international market. Various tariff and non-tariff walls will be reduced or eliminated. Foreign products will more easily enter Chinese market, and in turn, other WTO member countries will eliminate some tariff and non-tariff walls against China. It means that Chinese economy will be well developed according to Chinese comparative advantages. In the present development period, Chinese advantages are the abundance, high quality and low salary of labor. The labor-intensive products are Chinese comparative advantages, for which WTO provides a great chance to develop. The development of labor-intensive industries will offer plenty of employment. The surplus labor in rural areas will be quickly transferred from agriculture to non-agricultural industries. In this regard, WTO will be of great help to Chinese farmers' income rise and the solution of three-dimensional rural issues.

WTO is also helpful to improve agricultural technology. After entering WTO, various tangible and intangible technologies including seed and equipments more easily enter China. Chinese scientific research on food is internationally outstanding, but those agricultural products with comparative advantages in vegetable, fruit, livestock products and so on fall far behind the international level in food safety and organic food production. WTO will let Chinese farmers make good use of good international technologies, increase the competitive capacity of Chinese labor-intensive agricultural products, and raise farmers' income.

How does WTO influence the structural adjustment on Chinese agriculture? Chinese comparative advantages in agriculture are labor-intensive agricultural products, which will have a great development chance if there are no trade barriers after entering WTO. China has no comparative advantages in labor-intensive food production. If Chinese economy has an average growth rate of 7-8% per year in the next twenty or thirty years, China will have less and less comparative advantages in food production and need more and more food import. The challenge China confronts is how to smoothly export the agricultural products with comparative advantages and import more non-comparative advantage food with the economic growth in the future.

As to the above challenge, just entering WTO won't solve the problem, because developed countries create various policy barriers to agricultural product trade. China hopes to export more labor-intensive agricultural products, while the developed countries, such as the U.S., Canada, Australia and etc, hope to export land-intensive food to China (Wen Tiejun, 2003). However, the main barrier at present is the concern for food safety of all the countries. From the economic angle, as a rapid developing country, importing more non-comparative advantage food is good for the improvement of resource configuration, economic growth and even farmers' income rise. However, some large exporting countries often take food as their weapon to achieve their political goals, so all countries do not wish their food safety is controlled by other countries. For its survival, China cannot and is unwilling to import a lot of food. However, it will be a good time for the structural adjustment on Chinese agricultural industry and the rise in farmers' agricultural income after entering the WTO. (Source: Huasheng Bao website at http://www.hsm.com.cn/)

2. Drivers for Change

2.1 Major 'drivers for change' in the agric food sector

-Consumer tastes and behaviour

-Competition and production efficiency

-Advances in technology

-Institutional pressures and regulatory requirements

-Environmental considerations

-International and globalisation influences

-Policy influences

(Source: W.P.Davies Drivers for change in modern food supply)

2.2 These influences can themselves be multi-dimensional

On the demand side for example, 'consumer change' involves considerations of demographics and population structures, cultural and religious issues, economic status and disposable income, aspirations and lifestyle. In the same way the supply side will be influenced in many ways by advancing technology and new innovations in different parts of the food chain (David, 2000).

These factors can also interact in complex ways.

For example, consumer reactions to new technologies, environment issues and animal welfare concerns in the food chain can exert political pressures for changes in legislation, regulation and international trade (Baines& Davies 1998, Davies 1999).

3. Consumer Concerns

Consumer concerns in China have prompted higher quality standards, control procedures and information requirements. Food products with positive health attributes are likely to find increasing markets with particular opportunities for new functional foods and so-called 'nutraceuticals' (Enrique's & Goldberg2000).

Retailers, acting as the gateway, are the funnel points for food supply, and they are consolidating and declining in numbers. This concentration of power, in dominating consumer relationships, as the 'food chain captains', seems likely to continue (Foreign Economic Bureau, 2000). The question remains of whether this concentration of power is good news for consumers and, as importantly, whether this high degree of domination is desirable for other contributors to the food chain for future production and processing enterprises.

Consumers seem to associate these issues with healthier lifestyles and longevity, including increasing public interest in, and access for recreation. Increasing restrictions on input-use, such as pesticides and fertilizers, and increasing requirements for environmental quality, in particular of water and soils, are changing approaches to fanning. There are significant limitations.

This new food culture based on increasing consumer consciousness, and concerns, which focus on health, nutrition, environmental concerns and more traditional approaches to farming, has boosted the market for organic and more 'natural' products in China.

4. Understanding the Changing Consumer

4.1 'Understanding the consumer' and 'working with the consumer'

'Understanding the consumer' and 'working with the consumer' have become essential elements of food chain studies. The key to more successful food supply hinges on gaining a much better understanding of consumer behavior, and what influences and informs choices about food.

Do we know what consumers want and how capable are we of providing the right food products?

Agricultural production is increasingly market led and needs to focus more and more on the needs of the marketplace to maximize profitability (Hutton, 2003). In developed markets the links and understanding between farmer producing foods and consumers have been historically.

Much better integration in the food chain is not only essential for better relationships with the end consumer ('the market') but also for seizing 'added value' opportunities. Shifting farm commodity production of low value to more value added products is dependent on a much better understanding of the marketplace, and an increased capability to better manage the entire food chain business.

Retailers are making increasing attempts, in particular, to understand the consumer and segment the market. What consumers want, their motivations, their changing lifestyles and individual circumstances are all considered very significant. How well are these changing requirements understood, however, in primary agricultural production? (W. P. Davies, 2003)

4.2 The changing lifestyles and circumstances in China

A number of changing lifestyles and circumstances are evident in social trends in China. In particular:

- An increasing proportion of working women
- More couples without children
- More single parents
- Increasing numbers of active/retired and elderly persons
- More men shopping
- More adventurous 'eating-out'
- Increasing numbers of microwaves and freezers
- Shorter food preparation times
- Increasing snacking and grazing habits, with fewer meal occasions at home
- Increasing interest in personal health and food safety
- Increasing interest in a more diverse diet and exotic foods
- Greater concerns for the environment and animal welfare issues
- Much more concern about good health and diet habit

4.3 What consumers consider in food supply

Food and eating are an integral part of over 4,000 years of Chinese culture. In a nation that has frequently suffered from starvation, a common greeting is "Have you eaten yet?" Even now, meals still hold a central place in Chinese society (Huang, 2003). Today's consumer exhibits a number of characteristics that need to be considered in relation to food supply.

- More demanding
- More fresh
- More convenient
- More healthy
- More safety
- More nutrition
- Better product quality

All of which need to be accommodated in food supply to meet diverse consumer needs (Malcolm 2002).

4.4 To meet changing market requirements

As a result a number of changes in food product development have taken place to meet changing market requirements in China. Including:

- A greater range of convenience foods
- More fully, or partly -prepared, food products
- More 'health-giving' products
- More sophistication in the marketplace
- More products for different sectors
- A greater range of product sizes and packaging types
- More value added products
- More label information

4.5 The lifestyle shopping requirements

In South-East Asia, the importance of the 20-39 year age group is being increasingly recognised in food retailing, and of the expanding middle classes with an increasing level of disposable household income (Glover 1999). Consumers are seeking many of the lifestyle shopping requirements such as:

- A need for much greater convenience
- More 'one stop shopping'
- More convenience foods (refrigerated and packaged)
- A wider range of foods and more choice
- More branded products
- A more healthy, hygienic and cleaner shopping environment
- Longer opening hours
- Easier access and more car parking.

It has to be recognized, increasingly. Some of these needs may seem far removed from the production process on farm, and even in some cases from later downstream processing and distribution, but the issues of transparency in the food chain and accountability now underpin quality assurance schemes.

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