

# An analysis on the problems of Farmer-Supermarket Linkage Model (*nongchaoduijie*) of Zhejiang Province

Tohoku University

Graduate School of Agricultural Science Jia Lei

## 1. Introduction

For some time, China's agricultural production has been conducted in a fragmented small-scale manner and the production of agricultural products remains highly dispersed. In order to resolve the contradiction of “small-scale production” and the “big market” under the current food marketing system, a series of policies and laws including “Notice regards to the pilot program of *nongchaoduijie*” and the “Law of the People's Republic of China on Specialized Farmer Cooperatives” were enacted by the government in 2007 in order to improve the organizational level of farmers and promote industrialization of agriculture. *Nongchaoduijie* refers to the signing of contracts with farmer cooperatives, with supermarket chains encouraged to procure fresh agricultural products directly from farmer cooperatives. This will help reduce intermediate links in the distribution channels of agricultural products and improve the quality and safety of agricultural products as well as farmer's incomes.

## 2. Study Objectives

Due to the fact that these farmer cooperatives are still in the development stage, there exist several complications. There has been research showing that many farmer cooperatives have had difficulty in meeting the large requirements being ordered by major supermarket chains [1], while supermarkets cannot make timely payment settlements for agricultural products from cooperatives [2]. Warehousing and logistics for small and medium-sized supermarkets without

government subsidies are also lagging behind [3]. The transmission of market and technical information from retailers to producers is vital for *nongchaoduijie* according to research [4]. In this paper, the author chooses farmer cooperatives and supermarkets in different sizes and varieties in Zhejiang province as objects and attempts to clarify the relationship between farmer cooperatives and supermarkets in the course of participating in *nongchaoduijie* program. By identifying the existing problems of *nongchaoduijie*, the author tries to seek a more effective method that results in more suitable conditions for the current development of agricultural product circulation.

## 3. Research Method

We collected data of farmer cooperatives in regards of quantity, size, formation pattern, and sale model in Zhejiang Province from 2007 to 2013 as well as farmer cooperatives and supermarket chains participating in the *nongchaoduijie* program in 11 major cities of Zhejiang province. A field survey on the willingness of a number of grape cooperatives participating in *nongchaoduijie* was also conducted.

## 4. Results and Discussion

The total population of Zhejiang Province in 2012 was 54,728,000, of which 34,599,000 were farmers, accounting for 63.2% of the total population. There were only 1,002,800 farmers who joined with farmer cooperatives, accounting for 2.9% of the total number of farmers. The number of farmer cooperatives in Zhejiang Province increased from 5141 to 37,428 from 2007 to

2013 while the number of members increased from 385,000 to 1,149,000 - a growth rate of 628% and 198% respectively. By the end of 2012, there were 27 supermarket chains in 11 major cities of Zhejiang Province that have participated in the *nongchaoduijie* pilot program. Among the cities of Hangzhou, Ningbo and Quzhou each have four supermarket chains, which have collaborated with 250, 215, and 232 farmer cooperatives respectively. Jiaxing city had only one supermarket and 25 farmer cooperatives that were participating in the *nongchaoduijie* pilot program. There are four major sale models of farmer cooperatives beyond the market circulation in Jiaxing City: First, establishing farmer cooperatives direct-sale stores; Second, selling to supermarkets including *nongchaoduijie*; Third, selling to agricultural processing companies; Fourth, selling to dining halls for the schools, enterprises and public institutions. The four sale models accounted for 48.0%, 27.7%, 7.7% and 16.6% respectively of its total sale revenue (Table1).

The above analysis shows that the number of farmer cooperatives in Zhejiang Province has a trend of yearly increases, however cooperatives that participated in the government promoted *nongchaoduijie* program accounted for only a tiny proportion. This is not only due to the government setting a very high entry barrier for supermarkets participating in *nongchaoduijie* pilot program, but also due to the supermarkets creating certain requirements such as size for their potential suppliers in the farmer cooperatives, thus small and medium-sized supermarkets and cooperatives which cannot spread overhead cost over large volumes of product are excluded at the same time [5]. From a win-win situation for both supermarkets and cooperatives, establishing the united-cooperative of farmer

cooperatives of different size and developing new agricultural entities would be one of the ways to reduce the unbalanced situation. On the other hand, by diluting the reliance of supermarket chains from government subsidies, by adopting the “cooperative + broker + small and medium-sized supermarket” sale model, an 8-10% of the interest would be taken by brokers. Payment settlement in time could be realized as well as avoiding the restrictions of sizes and types, this model will be accepted by the vast majority of cooperatives.

### References

- [1] Zhang, S.Q and Li, S.H. “Modern Retail Value Chain Enhances the Development of Modern Agriculture - Discussion on Opportunity for Nongchaoduijie,” *Journal of Nanjing University of Science and Technology*, (4), 2010, pp.10-14 (in Chinese)
- [2] Chen, J.T. “A Study of the Model, Problems and its countermeasures on Nongchaoduijie,” *Economic Research Guide*, (36), 2011, pp.202-203 (in Chinese)
- [3] Ma, F.Q. “Discussion on the Impact of Alliance on the Agricultural and Supermarkets and its countermeasures,” *Journal of Anhui Agricultural Sciences*, 38(9), 2010, pp.4959-4960. (in Chinese)
- [4] Zhao, Y.Y and Sun, J. “The Level of Informatization determines the Success of Nongchaoduijie,” *China Computer Communication*, (06), 2011, pp.53-54 (in Chinese)
- [5] Gale, F. and Hu, D.H. “Food Safety Pressures Push Integration in China's Agricultural Sector,” *American J. of Agricultural Economics*, 94(2), 2012, pp. 483-488

Table 1. Sale Models of Farmer Cooperatives Beyond the Market Circulation ( Jiaxing City)

Sale Models	Farmer Cooperatives		Sale Volume	
	Number	Proportion	Sale Volume (10 thousand)	Proportion
Direct-Stores	72	51.4%	30452	48.0%
Supermarket& <i>Nongchaoduijie</i>	30	21.4%	17556	27.7%
Processing Co.	25	17.9%	4906	7.7%
Dining Hall	13	9.3%	10540	16.6%
Total	140	100%	63454	100%

Source: Bureau of Agriculture of Jiaxing City, 2012