



The Analysis and Counter-Measures Discussion about Information Asymmetry in the Operation and Management patterns of Organic Agriculture -----Based on Comparison between Zhongliangmeiyu Ltd in Heilongjiang Province and Company A in F City, Shandong Province and an Analysis Used SWOT Approach

Xinmin Zhang

College of Economics & Management, China Agricultural University
Beijing 100094, China

Yongfu Chen

College of Economics & Management, China Agricultural University
Beijing 100094, China

Chuncheng Liu

Beijing Central Business District Administrative Commission
Beijing 100094, China

Jialin Xin

College of Economics & Management, China Agricultural University
Beijing 100094, China

E-mail: qchzxm@126.com, chenylf@yahoo.com.cn

Abstract

In This paper, we focus on the need for compares the organic production, operation and management patterns between paddy rice production base of Zhongliangmeiyu Ltd (Meiyu for short) and organic vegetable production base of company A, and adopt the SWOT approach to analyze the strengths, weaknesses as well as external opportunities and threats of the two patterns. The conclusion can be briefed as follows: being located in high-end products market is the premise and basis of China's success in organic production, operation and management, blending cultural factors into production, operation and management is one of effective measures to solve the problem of information asymmetry in the "firm & farmer" operation and management pattern..

Keywords: Organic production, Operation and management pattern, "Firm & farmer" pattern, Information asymmetry

1. INTRODUCTION

This will be followed by a description of China's organic agriculture experiences the process of take-off, quest and development in the recent years. Since 2006, China's organic farming area has been the largest in Asia, the second largest in the world, accounting for 0.6% of total agriculture farming area, about 1560 farms (agricultural firms) adopt organic agriculture production method (IFOAM & FIBL). Restricted with intrinsic factors of mass population and scant per capita arable land in China's rural areas, agriculture production generally have attributes of small-scale and disperse operation. In addition to high production technique standard, authentication cost, market access and risk, single farmer has difficulty with organic agriculture production. Therefore, "firm & farmer" pattern oriented by firm has been one of necessary choices of microscopic operation and management organization in China's organic agriculture production.

In the “firm & farmer” organic production, operation and management pattern, production process of organic agricultural products is organized by farmers themselves. Farmers pursue maximizing individual interest by information asymmetry in the production process, i.e. ,farmers possibly don’t comply with production regulations of organic agricultural products made by “firm” completely ,such as fertilizing and spraying insecticide secretly, in order to increase yield and income. It is obvious that the key problem in the above pattern is how to overcome information asymmetry between single “firm” and mass “farmers”, which means that facing with lots of disperse farmers, it is very difficult for firms to catch hold of every farmer’s production information exactly because of high cost of screening and supervising .

The aim of above problems is to provide methods to construct such probability distribution. this paper selects two different organic production, operation and management patterns of Meiyu in Wuchang city, Heilongjiang province and “A” company in F city, Shandong province, adopts the SWOT approach to analyze the strengths, weaknesses as well as external opportunities and threats of two patterns, and discusses about development tendency of organic agriculture production, operation and management pattern.

2. THE OPERATION AND MANAGEMENT PATTERNS AND THE CHARACTERISTICS OF MEIYU AND COMPANG A

2.1 Meiyu company

Meiyu initially signs organic rice orders with farmers, according to contracts, farmers can only use biological organic fertilizer which is admeasured uniformly by company instead of any chemical fertilizer. However, adopting organic production makes paddy rice yield decrease, so some farmers fertilize secretly in order to enhance yield. In order to prohibit farmers from fertilizing secretly, encourage farmers to use environmental fertilizer according to company’s requirement, and ensure the standardization of organic production, in the beginning of 2008, Meiyu took farmers’ suggestion into consideration, formulated the method of calculating income according to growing area. Farmers grow paddy rice according to organic production regulations strictly, they can receive ¥30,000 per hectare regardless of yield in autumn. The key point of this “lowest income” policy is ensuring that farmers grow paddy rice according to organic production regulations strictly, thus guarantee the quality of organic rice completely.

Meiyu regulates paddy rice production management strictly, employs digital tracing and close “ID” in the whole process to manage products. They provide seeds and technology training closely, allocate nutrient closely, thresh paddy rice closely, quantify electronically in the fields, use uniform packaging specification, sewing standard and attaching “ID”, put into low-degree warehouse directly. Meiyu initiates direct management from field to workshop, solves the quality of organic products concerned by common people, alleviates farmers’ burden.

In the process of exploring organic agriculture production management pattern, Meiyu reflects its corporate culture which advocates Confucianism, aiming at forging high-end rice brand by means of relying on farmers, trying to solve farmers’ practical difficulties and making farmers benefit from the new pattern. Firstly, provide scholarship and stipend for farmers’ children to afford their total or partial tuition. Secondly, pay medical item expense for farmers’ family. Thirdly, offer help to farmers who got poor because of serious illness. Finally, give wedding money to farmers’ children when they are married. In addition, Meiyu provides farmers legal assistance. The culture construction of Meiyu caught hold of farmers’ hearts, combining farmers with enterprise, forming the unity of interest.

Meiyu is going to integrate agriculture industrialization, enhance farmers’ living standard, combine new countryside construction with its development, try to improve farmers’ living environment and quality. Meiyu is planning to establish Zhongliangmeiyu organic paddy rice cooperative, in the principle of voluntary participation, evaluating farmers’ present residence, determining capital stock according to real value as original stock of joining into cooperative. Later on, Meiyu company would take down old housing, program and design new farmers’ villa uniformly, improve farmers’ housing condition radically.

From the above we can see that Meiyu blends traditional culture into management on the basis of cooperative pattern, unifies interests of firm and farmers by “common people’s hearts” project, stimulates farmers’ production enthusiasm, makes farmers implement organic production management regulation spontaneously, avoids information asymmetry problem effectively. The pattern is entitled “common people’s hearts” management pattern. In the meanwhile, Meiyu locates themselves in domestic high-end organic rice market, supports high input cost with high profit margin. It undertakes all production and marketing risk, satisfies farmers’ needs of evading risk, gets rid of farmers’ opportunism inclination, guarantees organic products’ quality. Its successful experience is :putting forward Confucianism as its corporate culture, focusing on “common people’s hearts”, integrating farmers with firm, making farmers engage in paddy rice production management spontaneously, combining strengths such as capital, technology and market & base with natural resources, labor resources, realizing strengths complementation and resources sharing.

2.2 Company A

Company A is one of export-oriented joint ventures founded in 1994, which operates growing, processing and exporting of organic vegetables. Over these years, “A” company promotes base construction positively in the principle of

“Constructing market-oriented base, introducing standard to manage base”. They arrange planting plan, supply means of production and seed, purchase organic raw material, train operators uniformly in order to guarantee organic products’ quality.

The scope of this research lies in company A popularizes several patterns such as “firm & base & farmers”, “firm & cooperative & farmer”, spending more than ¥800,000 on base construction reform and farmers’ income loss subsidies. In the beginning of 2008, we investigated an organic vegetable production base of “firm & cooperative & farmers” pattern. Its main attributes of production, operation and management can be briefed as follows: unify interests of firm and farmers, acquisition process and production management mainly rely on cooperative, firm assigns technical to help cooperative to instruct farmers’ production, arranges growing plan, supplies means of production and seeds, purchases organic agricultural products uniformly according to previously agreed price. As for some farmers’ information asymmetry (opportunism tendency), “A” company performs “ten households unity”, if only one family offends regulation, others would be punished together, aiming at supervising each other among farmers.

From above point of view that we can see that company A lets cooperative sign production contract with farmers, cooperative performs united punishment management against organic production and operation, which is entitle “United punishment” management pattern. At the same time, “A” company locates in organic vegetable export market, relatively high international market price makes company A supply higher organic price than common vegetable, making up for the loss of production cost increase and yield decrease, ensuring farmers’ high income. Company A’s potential risk is relatively low, its main risk comes from international market, while farmers undertake main production risk. Firm and farmers are connected by economic interest, production, operation and management cost is low, supervise farmers with punishment measures, but information asymmetry problem between firm and farmers can’t be eliminated completely.

3. THE SWOT ANALYSIS OF ORGANIC PRODUCTION, OPERATION AND MANAGEMENT PATTERN

3.1 The SWOT Analysis of Meiyu company’s organic production, operation and management pattern

a. Strength

1) Harmony

Firstly, Meiyu major shareholders are Wuchang citizens, they have good interpersonal relationship and the goal of benefiting hometown, so they can easily receive help from local residents and government, which reflects China’s cultural tradition. Secondly, Wuchang city has a long history of growing rice and abundant labor forces, farmers have rich experience in growing rice. All these provide basis for this labor-intensive product.

2) Local deeply cultural tradition establishes the basis of “common people’s hearts” management

The name of Wuchang city comes from China’s traditional culture, especially from Confucianism. China’s traditional culture advocates “repay others more for their previous help”, Meiyu corporate culture has strong cohesion. From the survey we can see that local farmers’ production enthusiasm is very high, attaching importance to company’s reputation. Traditional rural society has little liquidity, farmers’ living scope is narrow and fixed, and people concern about others’ attitude towards themselves, which is one reason of Chinese people’s being concerned about face-saving. Zhongliangmeiyu company groups farmers, lets them supervise and promote each other, and makes organic production management become farmers’ own things. All these are culture characteristics of Meiyu organic production management, catching hold of “common people’s hearts”, transforming organic production management into farmers’ spontaneous actions.

3) High efficiency and good effectiveness of production, operation and management

“lowest income” policy transfers the risk of organic paddy rice production to firm, farmers don’t burden production risk, saving supervising cost, eliminating some farmers’ opportunism tendency. In the pattern of Meiyu organic production, operation and management, farmers are major forces, they can arrange their labor time freely and reasonably, saving supervising cost, enhancing production efficiency.

4) Receiving support from local government

Meiyu combines corporate development with new countryside construction, which is not only favorable for farmers but satisfies local government’s need of setting new countryside construction example. As a result, local government supports Meiyu development greatly.

b. Weakness

1) Starting late, pattern of production management needs to be improved further

At present, farmers approve of firm’s principle of “calculating income according to growing area”, production enthusiasm is high. But from the long term, there is no relationship between yield and farmers’ income. It is necessary

to establish long-term incentive mechanism, improve pattern of production management further in order to keep farmers' enthusiasm.

2) Firm undertakes almost all risk, too much upfront input

Meiyu risk of production management pattern focuses on itself, upfront input is enormous, requiring strong power backing up. Market development is a long-term process, consuming high marketing expense, so operating benefit is low, profiting is difficult at the beginning. Meiyu company's real operation condition proved it: firm sank into deficiency in 2007, its general manager—Mr.Zhang, analyzed that even if break-even is god-given in 2008.

c. Opportunity

Domestic organic food market is developing increasingly, organic food is accepted by common people gradually. China's economic growth and income increase expand space for high-end organic rice brand development. Meiyu locates in "developing organic rice, forging high-end organic rice brand", competing with Japan's "Yueguang" rice, its series of products' lowest sales price is ¥34 per kilogram. High profitable space provides basis and guarantee for firm's benefiting farmers and implementing "common people's hearts" management.

d. Threat

It should be noted that domestic organic food market isn't normative, "Bad money drives out good" phenomenon is serious, consumers are suspicious of organic agricultural products, which is harmful to organic food market's healthy development. Japan's rice entered domestic market aggressively and occupied our high-end rice market rapidly, which makes China's high-end rice market's competition excessively fierce.

3.2 The SWOT Analysis of company A's organic production, operation and management pattern

a. Strength

1) Management system is relatively perfect

Through long-term cooperation, firm and farmers trust each other step by step. Through many years' exploration, organic production, operation and management system is improved and developed gradually.

2) Firm only undertakes a little risk and input

Owing to adopting order form, price is determined previously, quality standard is decided by firm, production risk is born by farmers instead of firm. Uniformly supplied means of production's price is decided by firm, freedom degree is high, cost is burdened by farmers, firm only advances in the short-term.

b. Weakness

Concerning general aspects of information asymmetry, high production supervising cost, it's difficult to eliminate farmers' opportunism tendency. One difficulty of company A's organic production, operation and management pattern is prohibiting farmers from fertilizing and spraying insecticide secretly in order to increase yield. Some farmers' opportunism tendency affects organic agricultural products' fame seriously, leading to consumers' suspicious of organic agricultural products' quality, doing harm to healthy development of organic agriculture.

c. Opportunity

Company A is export-oriented, mainly exports to Japan, the USA, Canada. In the following of "green barrier" in Japan, exporting common agricultural products is increasingly difficult, which yet offers more opportunity for organic agricultural products. All these are beneficial to expand production, reduce management cost, guarantee finishing orders, lower firm risk.

d. Threat

There are more and more organic vegetable manufacturing firms joining into export army, export competition is increasingly fierce, price is increasingly lowering, market risk is growing.

4. CONCLUSION

Through the comparison and a SWOT analysis of the organic production, operation and management patterns between Meiyu and company A, we can know that these two patterns have their own strengths and weaknesses, opportunities and challenges.

Meiyu's paddy rice production and management pattern is an innovation to "firm & farmers" by the pattern of operation and management. Its main success experience are following: making use of culture construction, focusing on "common people's hearts" management, linking farmers with firm, making rice production and management become farmers' spontaneous behaviors, guaranteeing organic agricultural products' quality, laying foundation for forging high-end rice brand. This pattern is an effective way to solve some farmers' opportunism tendency in "firm & farmers" pattern, ensuring production quality of organic agriculture effectively. However, organic vegetable production pattern of

company A links firm and farmers by economic interest, which cost is lower of production and management, supervises farmers by means of punishment, farmers' opportunism tendency is difficult to eliminate. In addition, firm undertakes little investment and risk. As a result, the majority of organic agriculture firms would choose this pattern.

Indeed, operating strategy play a important role in management section. Meiyu locates in "developing organic rice, forging high-end organic rice brand", competing with Japan's "Yueguang" rice, its series of products' lowest sales price is only ¥34 per kilogram. High profitable space provides basis and guarantee for firm's benefiting farmers and implementing "common people's hearts" management. The key point of forging high-end organic rice brand is to guarantee stable and high products quality. This pattern lays solid foundation for long-term cooperation between firm and farmers, ensuring win-win situation. In the innovation of organic production and management pattern, firms are major force of resource integration, leading enterprises are key to organic production and development. Meiyu combines strengths such as capital, technology and market & base with natural resources, labor resources, realizing strengths complementation and resources sharing. While company A locates in international market, combines farmers with firm by means of "firm & farmers" pattern, which makes company A get development rapidly. However, owing to information asymmetry, once farmers have opportunism tendency, it would be harmful to firm's honor, which sharply increases firm's risk. Though "United punishment" management pattern possesses strength of low operation and management cost, it is troubled with ultimate problem of keeping long-term and sustainable development.

Form the above discussion, the conclusion can be reached that being located in high-end market is the premise and basis of China's success in organic production, operation and management, blending cultural factors into production, operation and management is one of effective measures to solve information asymmetry problem in the "firm & farmer" operation and management pattern.

References

- CAO, Hui, CHEN, Ping-liu. (2007). The Study of Swot Analysis and Countermeasures on Development Flower Industry in Fujian Province. *Yunnan Geogographic Environment Research*.2007.03, pp. 79-83.
- Deng Hongtu, (2004). A Historicist Interpretation of Firm Integration and the Pattern of Company Linking With Farmers & Production Bases—Evidence from the Contracts between Saiyafei and Farmers. *Research of Institutional Economics*.2004.02, pp. 122-140.
- Jia Weiqiang, (2007). *Research on Cooperation mechanism of Company & Peasant Household Pattern*. JiangXi People's Publishing House. 2007.08, pp. 4-6.
- Ma, Zhuo. (2006). Development, Question and Countermeasure of Organic Agriculture in China. *Chinese Agricultural Science Bulletin*. 2006.11, pp. 338-342.
- SUN, Yaowu, Liu, Cao. (2004). Economic Analysis on Operation Difficulties of "Corporation & Farmer" Organization. *The Theory and Practice of Finance and Economics*. 2004.04, pp. 113-118.