Vegetable Supply Chains of Supermarkets in Sichuan, China and the Implications for Supply Chain Management

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Abstract
This paper presents an overview of the development of supermarkets in the inland province of Sichuan in China over the past decade, with special attention to vegetable products. Both foreign and domestic supermarkets are expanding in the region with different store formats. Five types of vegetable procurement system for the Sichuan supermarkets are identified. Chain characteristics such as product standards and logistics are examined. The future role for wholesale markets and the opportunities for small-scale farmers to participate in the development of supermarkets are discussed. Several hypotheses are proposed to further investigate the degree of vertical coordination along the vegetable supply chain, namely quality requirements, monitoring costs and institutional developments.

INTRODUCTION
The supermarket, as a new market outlet, emerged in China in the 1990’s. Even although it has less than a decade of development history, the supermarket has become the most dynamic retail format in the urban food market in China.

In the mid 1990’s, China’s Chainstore and Franchise Association (CCFA) was the only institution tracking store numbers and economic performance of chain enterprises. The CCFA estimates that at least 75% of these chain operations in China are supermarket chains. Hu et al. (2004), use the term ‘meteoric rise’ to express the breathtaking expansion of supermarkets in China. Annual growth rates, whether measured by numbers of enterprises, stores or sales values, are between 40% and 300%, outpacing all other regions in the history of supermarket development (Reardon et al., 2003).

According to the CCFA, more than 80% of the stores of the top 90 chains in China are located in the eastern coastal regions. Leading players are in Shanghai, Beijing, Guangdong, Jiangsu and Shandong provinces. This disparity is partly due to the advanced economic development in these regions. Hu et al. (2004), found that there is a highly significant relationship between supermarket penetration and urbanization ratios as well as urban disposable incomes. Another contributing factor is central government policy as market liberalization in the retail sector started in these regions in the early 1990’s. Foreign retailers had to find local partners in specific regions in order to enter the Chinese market. However, in recent years, there has been a tendency for supermarkets to spread to inland regions, particularly to their provincial capital cities. Retail markets have been further liberalized since China joined the WTO in 2001.

Although China has only a short history of supermarkets, almost all store formats found in other parts of the world are present. The CCFA defines 6 supermarket formats as convenience stores, discount stores, supermarkets, superstores, hypermarkets and warehouse clubs. The large formats, particularly the hypermarket and the warehouse club, are dominated by foreign multinationals, while convenience stores are mainly controlled by local enterprises.

Sichuan: Commercial Centre in the South-West of China
Sichuan is located in the southwest of China and has a population of 85 million.
Although Sichuan is to a certain extent lagging behind the coastal region in the east of China, its economic development is nevertheless the most advanced in the western part of the country. Its capital Chengdu is the cultural and economic centre of the western part of China. The total population of grand Chengdu (including peri-urban areas) is 10 million and the population in the central urban area is about 3 million. With 829 people per square kilometre, it is one of the most densely populated regions in China. In 2003, the disposable income per capita in the urban area reached RMB7,042 (USD900). The total retail sale of consumer goods in Sichuan accounted for 26% of the whole western region and Chengdu accounted for 36% of Sichuan in 2003. Therefore, it is not surprising that when entrepreneurs are expanding their businesses towards the western part of China, Chengdu is often their first consideration.

The objective of this study is to gain an insight into the rapid development of supermarkets in Sichuan with special attention on their vegetable supply chains. The intention is to explore how this new development is affecting existing vegetable production and marketing structures in Sichuan and what its implication will be for policymakers and business communities.

METHODOLOGY

We reviewed the relevant literature on supermarket studies. Based on these reviews, an interview guideline for Sichuan was developed. We were aware that it would be very difficult to approach supermarkets, due to intense commercial competition. Our experiences confirmed our expectations. The interviews were carried out in March, 2004. Of the 10 supermarkets we investigated, we obtained detailed interviews with six. Each interview lasted about ninety minutes. All supermarket interviewees were vegetable managers responsible for the vegetable section within their shops. The six approached supermarkets were Metro, Carrefour, Auchan, Ito Yokado, Xinyijao and Renrenle. In addition, three professional vegetable suppliers were interviewed from the Xulu Food Company, the Dunhuang Group and the Jinyuan Integrated Agricultural Development B.V. Furthermore, in order to obtain a complete picture of the whole vegetable marketing system, we visited the Chengdu Centre Wholesale Market, the largest one in Sichuan, and several other open markets.

At a provincial policy level, we approached the Sichuan Agricultural Committee and the Sichuan Provincial Department of Commerce. The Agricultural Committee is the top policy department for the agricultural sector in Sichuan. The Commerce Department makes policies for the commercial business sector. At the Chengdu City level, two corresponding institutions, the Agricultural Bureau and the Industrial and Commercial Bureau, were also contacted. Their major tasks are to implement policies pronounced by the provincial government.

SUPERMARKET DEVELOPMENT IN SICHUAN

Towards the end of the 1990’s, supermarkets started to enter Sichuan. Both domestic supermarkets and joint ventures entered Sichuan as a second step after they had first established bases in cities such as Shanghai and Beijing. Supermarkets originating in Sichuan only started to emerge in 2000, but they expanded rapidly in terms of store numbers. Most of them operate as small-scale convenience stores (100-200 m²). Meanwhile, traditional department stores were turning their food sections into supermarkets as well. The year 2003 turned out to be an important year for supermarkets in Chengdu when more newcomers joined the wave. Foreign supermarkets operate on a much larger scale with floor spaces ranging from 3,000 to 30,000 m². Based on our survey, a general overview of supermarkets in Chengdu is presented in Table 1.

At the time of our survey there were about 19 supermarkets in Chengdu totalling 441 stores, 32 of which had floor spaces over 5,000 m² and 10 stores had floor spaces between 1,000 and 4,000 m². The rest of the stores operated below 1,000 m². One must bear in mind that these store numbers are changing every month as new shops open. The geographic distribution of supermarkets encompasses the inner area to the outer area of...
the city with its starting point often the downtown area followed by the First Ring and Second Ring.

It appears that foreign supermarkets have been leading the way in Sichuan since the Japanese Ito Yokado and the French Carrefour first entered in the late 1990's. Under increasing pressure, the traditional local food stores reacted by converting themselves into Convenience Stores (CS) and Discount Stores (DS). Within a very short period, these CS were further expanded and can now be seen in almost all neighbourhoods in the city. In 2003, there was another important wave when supermarket chains from other provinces, together with other foreign chains, started to penetrate this inland market.

As far as fresh produce is concerned, only 33 out of 441 supermarket stores have a vegetable section. Convenience stores and discount stores hardly have any vegetable sections at all. Only when the supermarket shopping floor space reaches 3,000 m², does fresh produce appear in the shop.

Among the six interviewed supermarkets, the floor space for vegetable sections ranged from 80 m² to 400 m² with 50 to 100 vegetable varieties available. Between 10 and 15 staff members were working in the vegetable section. The volume of daily vegetable sales ranged from 3 to 20 tonnes.

**Promotion and Price Policy**

The most common form of in-store promotion is on-sale vegetables. Each day, several vegetables are put on sale; the quantities and time schedules for on-sale vegetables are limited. The purpose is to attract as many consumers as possible to the stores. Besides the in-store promotion, other means, such as brochures, gifts, coupons and newspaper circulars, are used. In order to increase consumer service, three supermarkets provide a free shuttle service, on showing a shopping receipt, between densely inhabited neighbourhoods.

Price competition is severe in the vegetable section in supermarkets. All shops set their prices with reference to the prices of their competitors and local open markets. The supermarket price is in most cases 5% to 20% lower than the open markets. All supermarkets are fully aware that they have to compete on freshness and price with the traditional open markets. All six interviewed supermarkets acknowledged that they would change their vegetable prices every day. Several even admitted that their prices were continuously adjusted during the day by following the inventory and the prices of their competitors.

**Product Standards and Quality Assurance**

Four levels of vegetable quality are available in supermarkets, namely normal vegetables, Pollution Free Vegetables (PFV), Green Vegetables (GV) and Organic Vegetables (OV) (Table 2). PFV is promoted by the Chinese government to improve its national food safety. It will be implemented as a compulsory national standard by 2005. The Green Vegetable standard is a level higher than PFV and is a voluntary standard advocated by the Ministry of Agriculture. OV is a level above GV and is administrated by the State Administration for Environmental Protection. All six supermarkets interviewed sold PFV, accounting for between 5% and 90% of their total sales. GV and OV were also available in several supermarkets, but to a limited extent.

Vegetable sections are normally located in the far end of stores. The logic behind this is that before consumers rush for the special discount on vegetables, they pass other commodities and will hopefully be induced to purchase them. The vegetables are displayed on wooden or metal shelves, packaged or loose. Every few hours the vegetables are sprayed with water by staff or automatic machines to keep them fresh and appealing. All shops but one indicated that their vegetables were inspected either at the production base or at their shops by means of residue testing and checking the application of agro-chemicals. The supermarkets choose suppliers whose vegetable production bases are certified by the Pollution Free Production office at a provincial level. Most in-store quality inspection is done by the Chengdu Quality Inspection Bureau (CQIB). They
randomly visit shops once a month and take samples to test residue levels of pesticides and agro-chemicals. Carrefour mentioned that they hired the private company SGS for in-store quality inspection, including hygiene conditions and labelling. XinYiJiao said that they were planning to set up their own lab for quality inspection and testing in 2004.

**Procurement System**

All supermarkets in Chengdu with more than one store have a Procurement Centre (PC) for vegetables. At the end of day, all stores report to their PC about their vegetable demands (quantities and varieties) for the following day. After the PC has summarised this data, they will inform their suppliers or wholesalers about what they have to prepare. Depending on what is more convenient and practical, suppliers will deliver their produce either to the PC or to the assigned stores. Direct delivery to stores takes place more often. Therefore, the term ‘Procurement Centre’ is more appropriate than ‘Distribution Centre’ in the case of Chengdu. Most of the PC use a combination of procurement schemes. We documented five procurement systems during our interviews.

1. **Wholesale Market Procurement.** This type of supermarket obtains vegetables solely from the local wholesale market. Their PC is often located inside the wholesale markets. They tend to make their purchase based on product quality and price and often do not have long term relationships with wholesalers.

2. **Professional Suppliers with Production Bases.** Another type of supermarket obtains their vegetables solely from professional suppliers. These professional suppliers have their own production bases in and around the city of Chengdu and have been certified as a Pollution Free Production Base by the provincial government or ISO 14000. The PC has annual contracts with professional suppliers and order daily via telephone or fax. These suppliers either rent land from collectives in the towns or villages for a long period (5 to 10 years) and run them as large production farms, or they have contracts with local governments to reach individual farmers. These contracts define the rights and obligations between the supplier and the local government. In most cases, the suppliers provide the technical assistance needed for the cultivation of vegetables and the plant protection in return for product quality performance. Local government is responsible for organizing individual farmers and quality control.

3. **Combination of Wholesale Markets and Professional Suppliers.** This type of supermarket obtains its vegetables partly from wholesale markets and partly from professional suppliers. They often build up long-term relationships with several wholesalers from the market and then purchase vegetables from them. They purchase their Pollution Free Vegetables from professional suppliers. The combined wholesaler and professional supplier scheme appears to be the most popular one in Sichuan at the moment.

4. **Farmers’ Association.** We spoke to only one supermarket that obtained its vegetables directly from a farmers’ vegetable association. The members of this vegetable association are vegetable growers and local vegetable traders. The leading traders play an active role in contacting supermarkets and delivering products. Supermarkets feel that with this arrangement they can react quickly to market demands and deliver fresh vegetables to consumers. In return, farmers are happy for their guaranteed market access and stable market prices. The Chinese government is currently encouraging farmers at all levels to organise themselves in one way or another. This case sheds light on how small scale farmers can organise themselves and catch opportunities in the rapid development of supermarkets.

5. **Headquarters Centralized Procurement.** Two supermarkets obtained a small amount of vegetables from their Shanghai headquarters. They were mostly exotic vegetables, such as chicory, which is not available in Chengdu markets, or vegetables certified with Green or Organic labels. The target markets are mostly luxury hotels, restaurants and expatriate communities.

Where and how supermarkets obtain their vegetables depends to a large extent on the image they want to portray. Some supermarkets, such as Ito Yokado, only deal with
quality guaranteed suppliers since that is the image they want to pass onto their consumers; other supermarkets obtain all their vegetables from wholesale markets. Their strategy is to compete on price and to attract more consumers from open markets. Four of the six interviewed supermarkets obtained their normal vegetables from wholesale markets in Chengdu (Table 3). Joint-venture supermarkets tend to deal with wholesalers over a longer term, while domestic supermarkets randomly select suppliers from wholesale markets on product quality and price.

**Logistics Technology**

Vegetable departments prepare their orders for the following day based on that day’s sale. When the vegetables are delivered depends on who will do the vegetable sorting and packaging. If this job is done by wholesaler or professional suppliers, the order will be made before 5 or 6 pm and the vegetables will be delivered around 7 am the following day direct to the shelves (Table 4). If the sorting and packaging is done at the supermarkets, the vegetables are delivered in the middle of the night. Night workers at the supermarkets will clear the vegetables, sort and repackage them.

Almost all professional suppliers have their own trucks but few have any cooling system. Some supermarkets use their own cooling trucks when the procurement is done by themselves.

The means of communication between the supermarkets and suppliers mainly consists of fax or telephone when making the order. All supermarkets have storage rooms for the cooling of vegetables ranging from 8 m² to 100 m². The day on which the supplier is paid varies between supermarkets. Suppliers to two Chinese supermarkets received their payments on the spot, whilst pay days for foreign supermarkets could vary from a week to a month.

**Economic Performance**

Almost all supermarkets admitted that they did not expect the vegetable sections to be profitable. The main purpose of this operation is to attract more consumers to purchase other profitable products. They believe that consumers are more sensitive to vegetable prices than to other prices. This is the reason why supermarkets have special prices every day for a selected few vegetables. Some supermarkets even have different vegetables on sale for special prices at different hours throughout the day. Consumers react to this marketing strategy and are willing to queue a long time to purchase at special prices.

According to our survey, three out of six supermarkets were making a loss on their vegetable sections, while the others were making a small profit. Severe price competition was the main cause for these losses.

**Future Expectations**

As far as future development is concerned, two types of marketing strategies can be distinguished. The first one is to focus more on vegetable quality. Some are planning to install in-store fast testing equipment for pesticides and agro-chemicals. Ito Yokado is putting much effort into vegetable cleaning, freshness and packaging, which is why some of their vegetable prices are even higher than those in the open markets. The second type of marketing strategy is to continue expansion. Half the interviewed supermarkets intend to open more shops in Sichuan. For example, one supermarket is planning to open another 5 shops in Chengdu by the end of 2004.

**CONCLUSIONS**

At the moment there are about 20 supermarket chains in its capital Chengdu with over 400 shops. Foreign supermarkets have been leading the way since the 1990’s when they first entered Chengdu. The ‘take-off’ stage of supermarkets in Chengdu seems to have started in 2003 when both domestic and foreign supermarkets opened their first shops in Chengdu.
Generally speaking, supermarkets in Chengdu can be grouped into three
categories: foreign supermarkets, domestic supermarkets and local supermarkets. The
foreign supermarkets include both joint-venture and foreign-owned stores. They often
open large stores and operate as hypermarkets and warehouse clubs. Furthermore, they
have the capacity and resources to focus on fresh produce. The second category (domestic
supermarkets), have their origins mainly in other provinces such as Shanghai and
Guangdong. This group closely follows the foreign competitors in terms of marketing
strategies. The last group (the local supermarkets), originate from Sichuan. They operate
on a small scale in terms of floor space, but they have a substantial number of stores in
and around Chengdu. These local supermarkets do not normally sell fresh produce.

Vegetables in supermarkets compete on price. Vegetable prices are set based on
competitors’ prices and the local open markets. Vegetable prices in supermarkets are
normally set 5% to 20% lower than those in the open markets. Price levels change every
day, even more than once for some stores, in order to keep the lowest possible price.
Other promotion instruments, such as brochures, free shuttles and coupons were also
found.

A combination of different procurement systems was used to obtain different
quality vegetables. Normal vegetables were often obtained from wholesale markets whilst
professional suppliers provided higher quality vegetables such as PFV. Limited green
vegetables, organic vegetables and exotic vegetables were often flown in from their China
headquarters in Shanghai.

Half of the sampled supermarkets were making a loss on their vegetable sections.
Lower vegetable prices were the major cause. However, supermarkets do not expect their
vegetables to be profitable. The purpose of the vegetable section is to attract as many
consumers as possible by strongly promoting it. Regarding its future development, the
focus will be on vegetable quality and further market expansion.

The supermarket vegetable supply chain in Chengdu is efficient logistically, if not
economically. The chain is short and responsive to market demand. One supermarket
even indicated that the time from the farmer’s field to their shelf was less than 18 hours.
From the impression we had during the spontaneously interviews with consumers, it
seems that consumers are generally happy regarding vegetable quality and prices. They
believe that the vegetables from supermarkets are safer than those in the open markets.
Consumers show more trust in supermarkets than in the open market retailers.

However, as supermarkets move on from first-level cities to second-level cities in
China, they face more challenges. In particular, there are several reasons why consumers
may not shop in supermarkets. The first is that supermarkets are not as conveniently
located for consumers as the open market. Consumers have to travel much longer
distances to shop in supermarkets. Most inland cities have a relatively poor infrastructure
and public transport system. Car ownership is only just emerging and lags far behind
cities like Beijing and Shanghai. Each of these factors hinder the consumers’ access to
supermarkets. The second restriction is that supermarkets often have a limited number of
cash desks and limited opening hours. There are often long queues for cash desks in
supermarket stores and hypermarkets; paying for the purchased goods, therefore, takes
more time than in open markets. The shorter opening hours also limit shopping times for
working women. Therefore, it is much more usual to encounter a group of retired
grandmothers than working mothers. Thirdly, consumers believe the vegetables in open
markets are fresher than those in supermarkets, although supermarkets are working hard
to compete. Supermarkets will have to improve their public relations in order to promote
to the public that they stand for fresh vegetables and good value for money.

Literature Cited
Supermarkets’ Private Standards of Quality and Safety in Procurement of Fresh Fruits
and Vegetables, Food Policy (Forthcoming).


Table 1. Overview of supermarket development in Chengdu, Sichuan.

<table>
<thead>
<tr>
<th>Names of Supermarkets</th>
<th>Supermarkets origin</th>
<th>Number of stores</th>
<th>First store opened</th>
<th>Floor space (m²)</th>
<th>Vegetables present</th>
<th>Main store format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hongchi Chain</td>
<td>Sichuan</td>
<td>150</td>
<td>2000</td>
<td>100—600</td>
<td>Limited amount for large stores</td>
<td>Convenience store</td>
</tr>
<tr>
<td>Huhui</td>
<td>Sichuan</td>
<td>150</td>
<td>2001</td>
<td>100-1,000</td>
<td>Hardly</td>
<td>Convenience store</td>
</tr>
<tr>
<td>Fengling</td>
<td>Sichuan</td>
<td>50</td>
<td>2000</td>
<td>100-1,000</td>
<td>Hardly</td>
<td>Discount store</td>
</tr>
<tr>
<td>Hongyan</td>
<td>Sichuan</td>
<td>50</td>
<td>2000</td>
<td>100-1,000</td>
<td>Hardly</td>
<td>Discount store</td>
</tr>
<tr>
<td>Huiji</td>
<td>Sichuan</td>
<td>7</td>
<td>2000</td>
<td>100-1,000</td>
<td>Hardly</td>
<td>Discount store</td>
</tr>
<tr>
<td>Chengdu Department Store</td>
<td>Sichuan</td>
<td>1</td>
<td>2001</td>
<td>2,000</td>
<td>No</td>
<td>Supermarket</td>
</tr>
<tr>
<td>People’s Department Store</td>
<td>Sichuan</td>
<td>8</td>
<td>2001</td>
<td>200-2,000</td>
<td>Only in three large stores</td>
<td>Supermarket</td>
</tr>
<tr>
<td>Parkson Department Store</td>
<td>Malaysia</td>
<td>1</td>
<td>2000</td>
<td>500</td>
<td>No</td>
<td>Supermarket</td>
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<tr>
<td>Wangfuding Department Store</td>
<td>Beijing</td>
<td>1</td>
<td>1999</td>
<td>500</td>
<td>Limited amount</td>
<td>Supermarket</td>
</tr>
<tr>
<td>Ito Yokado</td>
<td>Japan</td>
<td>2</td>
<td>1996</td>
<td>1,000</td>
<td>Much focus</td>
<td>Supermarket</td>
</tr>
<tr>
<td>Carrefour</td>
<td>France</td>
<td>3</td>
<td>1997</td>
<td>8,000-10,000</td>
<td>Much focus</td>
<td>Supermarket</td>
</tr>
<tr>
<td>Auchan</td>
<td>France</td>
<td>1</td>
<td>2003</td>
<td>5,000-6,000</td>
<td>Much focus</td>
<td>Supermarket</td>
</tr>
<tr>
<td>RenRenLe</td>
<td>Guangdong</td>
<td>2</td>
<td>2003</td>
<td>5,000-10,000</td>
<td>Much focus</td>
<td>Supermarket</td>
</tr>
<tr>
<td>Xin Yi Jiao</td>
<td>Guangdong</td>
<td>3</td>
<td>2003</td>
<td>3,000-6,000</td>
<td>Much focus</td>
<td>Supermarket</td>
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<tr>
<td>HaoYouDuo</td>
<td>Taiwan</td>
<td>7</td>
<td>1997</td>
<td>5,000-10,000</td>
<td>Much focus</td>
<td>Hypermarket</td>
</tr>
<tr>
<td>PriceSmart</td>
<td>USA</td>
<td>1</td>
<td>1999</td>
<td>10,000</td>
<td>Much focus</td>
<td>Warehouse club</td>
</tr>
<tr>
<td>N. MART</td>
<td>USA</td>
<td>1</td>
<td>2003</td>
<td>10,000</td>
<td>Much focus</td>
<td>Hypermarket</td>
</tr>
<tr>
<td>Metro</td>
<td>German</td>
<td>1</td>
<td>2000</td>
<td>10,000</td>
<td>Much focus</td>
<td>Warehouse club</td>
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<td>Beijing Hualian</td>
<td>Beijing</td>
<td>1</td>
<td>2001</td>
<td>22,000</td>
<td>Much focus</td>
<td>Hypermarket</td>
</tr>
<tr>
<td>Shanghai Lianhua</td>
<td>Shanghai</td>
<td>1</td>
<td>2003</td>
<td>20,000</td>
<td>Much focus</td>
<td>Hypermarket</td>
</tr>
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</table>

Total 441
Table 2. Quality level of vegetables sold in Sichuan supermarkets.

<table>
<thead>
<tr>
<th>Quality Scheme</th>
<th>Metro</th>
<th>Carrefour</th>
<th>Auchan</th>
<th>Ito Yokado</th>
<th>RenRenLe</th>
<th>XinYiJiao</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal vegetables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollution Free Vegetables</td>
<td>90%</td>
<td>30%</td>
<td>5%</td>
<td>55%</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>Green vegetables and organic vegetables</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Different formats of supermarket procurement systems for vegetables.

<table>
<thead>
<tr>
<th>Sourcing</th>
<th>Metro</th>
<th>Carrefour</th>
<th>Auchan</th>
<th>Ito Yokado</th>
<th>RenRenLe</th>
<th>XinYiJiao</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale markets</td>
<td>PFV 10-15 fixed wholesalers</td>
<td>One fixed wholesaler</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional suppliers with production bases</td>
<td>One PFV supplier (Dunghuan)</td>
<td>Two PFV suppliers (Luke,ErMei)</td>
<td>One PFV supplier (Dunghuan)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers’ association</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headquarters</td>
<td>GV and OV from Shanghai</td>
<td>Exotic Vegetables from Shanghai</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Logistical support for vegetable procurements.

<table>
<thead>
<tr>
<th>Sourcing</th>
<th>Metro</th>
<th>Carrefour</th>
<th>RenRenLe</th>
<th>XinYiJiao</th>
<th>Auchan</th>
<th>Ito Yokado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order and delivery timing</td>
<td>Order: 6 pm Delivery: 10 pm</td>
<td>Order: morning Delivery: 6am</td>
<td>Order: 5 pm Delivery: 7am</td>
<td>24 hours</td>
<td>Order: afternoon Delivery: 3 am</td>
<td>Order: 5 pm Delivery: 7am</td>
</tr>
<tr>
<td>Storage at supermarkets</td>
<td>100 m²</td>
<td>8 m² with cooling</td>
<td>20 m²</td>
<td>50 m² cooling</td>
<td>none</td>
<td>10 m² cooling</td>
</tr>
<tr>
<td>transportation</td>
<td>Supplier’s truck without cooling</td>
<td>Supplier’s truck and owns truck with cooling</td>
<td>3 own trucks without cooling</td>
<td>own truck without cooling</td>
<td>Supplier’s truck</td>
<td>Supplier’s truck and own truck with cooling</td>
</tr>
<tr>
<td>Transaction with suppliers</td>
<td>Weekly</td>
<td>Monthly</td>
<td>On the spot</td>
<td>On the spot</td>
<td>Two weeks</td>
<td>Once a month</td>
</tr>
</tbody>
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