

World Maritime University

# The Maritime Commons: Digital Repository of the World Maritime University

---

World Maritime University Dissertations

Dissertations

---

7-24-2010

## Case study of cold chain logistics business of third party logistics company

Han Bao

Follow this and additional works at: [https://commons.wmu.se/all\\_dissertations](https://commons.wmu.se/all_dissertations)



Part of the [Electrical and Electronics Commons](#), [Operations and Supply Chain Management Commons](#), and the [Transportation Commons](#)

---

### Recommended Citation

Bao, Han, "Case study of cold chain logistics business of third party logistics company" (2010). *World Maritime University Dissertations*. 1866.

[https://commons.wmu.se/all\\_dissertations/1866](https://commons.wmu.se/all_dissertations/1866)

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact [library@wmu.se](mailto:library@wmu.se).



**WORLD MARITIME UNIVERSITY**

Shanghai, China

**CASE STUDY OF COLD CHAIN LOGISTICS BUSINESS  
OF THIRD PARTY LOGISTICS COMPANY**

By

**BAO HAN**

**China**

A research paper submitted to the World Maritime University in partial  
Fulfillment of the requirements for the award of the degree of

**MASTER OF SCIENCE**

**INTERNATIONAL TRANSPORT AND LOGISTICS**

**2010**

## DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature): \_\_\_\_\_

(Date): \_\_\_\_\_

Supervised by

Professor QU Linchi

Shanghai Maritime University

Assessor

World maritime university

## ACKNOWLEDGEMENT

I am grateful to Mr. Qu Linchi, Professor, Dean of School of Economics and Management at the Shanghai Maritime University for his invaluable assistance, counsel and acute criticism. His zero-tolerance attitude for mediocrity has led to innumerable improvements of this paper.

Thanks are also due to a number of my friends and classmates who generously read the manuscript in its entirety and to give me the benefit of their tremendous suggestions. Each of them deserves credit for the quality and style of this paper. However, I am solely responsibility for any shortcomings made.

I owe my deepest appreciation to Professor Ma Shuo, Professor Shi Xin, Ms. Zhou Yingchun, Ms Hu Fangfang, who are in charge of this joint program on behalf of Shanghai Maritime University.

I also want to express my profound thanks to my supervisors Robin Gu and Tingting Zhang of Zurich International Shipping and Finance R&D Center under Zurich Financial Services Group for supporting me to complete this dissertation and providing me with career advice.

Last but not least, I wish to express my indebtedness to my beloved parents, who have offered me full support and encouragement which will accompany my life and career.

# ABSTRACT

**Title of Dissertation: Case Study of Cold Chain Logistics Business of Third Party Logistics Company**

**Degree: Master of Science in International Transport and Logistics**

**Abstract:** In this paper, the author studied a special and normal third party logistics company which did not have an outstanding performance. It was special because the condition of its performance was not only concerned by itself, but also drew attention by the local government and logistics industry. Furthermore, the performance of this company had a close relationship with the development of the regional cold chain logistics market and cold chain logistics industry. It was normal because the majority of third party logistics companies in China were just like this company, thus making the research had representativeness. This paper took measures such as theoretical analysis of third party logistics and case study comparison to improve performance and expand business of this company which was not a member of supply chain management. This paper carried out a feasibility demonstration of three aspects of this target company, which were value-added service, organizational structure and market order, and gave suggestions to them respectively. The research objective of this paper was to improve performance, accelerate development of market, and solve logistics industrial developing issues which the government concerned about. This paper was divided into five parts. The first chapter was background introduction. The second chapter analyzed the reason of the company's under performance. It analyzed the problems from third party logistics theory, value added business theory process, and typical cases these three aspects to find out the company's major problems. The third chapter gave two solutions for improvement, which were independently developing value-added service of third party logistics and improving organizational structure. The forth chapter pointed out market order was a necessary condition of successful marketing, which further confirmed enhancing technology standard was vital for

market order. The last chapter was conclusion.

**Keywords:** Third Party Logistics, Cold Chain Logistics, Performance, Supply Chain Management

# TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>II</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>III</b>
<b>ABSTRACT</b> .....	<b>IV</b>
<b>TABLE OF CONTENTS</b> .....	<b>VI</b>
<b>LIST OF TABLES</b> .....	<b>VII</b>
<b>LIST OF FIGURES</b> .....	<b>VIII</b>
<b>Chapter 1 Background, Research Aim, Innovation and Literature Review</b> .....	<b>1</b>
1.1 Background .....	1
1.2 Research Aim .....	6
1.3 Innovation .....	7
1.4 Literature Review.....	7
<b>Chapter 2 Theoretical Analysis &amp; Variance Analysis of Cold Chain Logistics</b>	
<b>Business of Third Party Logistics Corporations</b> .....	<b>9</b>
2.1 Cold Chain Logistics Work Flow and Third Party Logistics Corporations Based on Theory .....	9
2.2 Case of Cold Chain Logistics of a Third Party Logistics Company.....	12
2.3 Cold Chain Logistics Work Flow of Logistics Company A .....	14
2.4 Difference Analysis between Practice and Theory .....	17
<b>Chapter 3 Development mode of cold chain logistics of third party logistics which are Non-supply chain members</b> .....	<b>22</b>
3.1 In Defect of McDonald’s Development Thinking about Cold Chain Logistics .....	22
3.2 Independently Developing Value-added Service of Third Party Logistics.....	26
3.3 Choose of Organizational Structure Patterns for Third Party Logistics .....	27
<b>Chapter 4 Market Order of Cold Chain Logistics</b> .....	<b>32</b>
4.1 “Bad money drives out good” in Cold Chain Logistics Market .....	32
4.2 Significance of Normal Market Order .....	33
4.3 Rebuilding Market Order by Information Technology .....	37
<b>Chapter 5 Conclusion</b> .....	<b>39</b>
<b>REFERENCE</b> .....	<b>40</b>

## LIST OF TABLES

Table 1 Summary of Company A’s total assets, operating revenue of cold chain logistics for imported fruit and circumstance of local market .....	2
Table 2 Basic Information of U.S. HAVI Logistics Group .....	12
Table 3 Basic information of Company A .....	14
Table 4 Basic information of imported fruit cold chain logistics industry in Ningbo	16
Table 5 Statistics of sales of chocolate (imported and domestic made) in supermarket in Qingdao.....	23
Table 6 Performance objectives of value-added services of Company A.....	26
Table 7 Five kinds of organization structure and applicable enterprise types .....	28
Table 8 Basic information of logistics companies in Ningbo .....	34



## **LIST OF FIGURES**

Figure 1 Theoretical Work Flow Chart of Third Party Logistics.....	9
Figure 2 Theoretical work flow chart of cold chain logistics .....	11
Figure 3 Organizational Structure of Company A .....	15
Figure 4 Imported fruit work flow chart of cold chain logistics of Company A .....	17
Figure 5 Customer Chain of Company A .....	19
Figure 6 Work flow of development of packing value-added service.....	30

---

# **Chapter 1 Background, Research Aim, Innovation and Literature Review**

## **1.1 Background**

The research target of this thesis is about a logistics company in Ningbo which does business of imported fruit cold chain logistics (“Company A”). The net profit margin for year 2009 was 1.75% which was only 35% of the objective performance set at the beginning of the year which was 5%. Under market economy, performance issue should be the company’s own matter; however, this issue got the attention from the local government, because the local government thinks that the performance of Company A is related to the development of the regional cold chain logistics market and the development of logistics industry. Why?

Table 1 – Summary of Company A’s total assets, operating revenue of cold chain logistics for imported fruit and circumstance of local market

① Assets of Company A	Total investment (million RMB)	120
	Registered capital (million RMB)	60
② Scope of Business	Freight Fowarder & Shipping Agent	
	Customs Clearance & Inspection Application	
	Warehousing	
	Distribution	
	Cold Storage	
	Import & Export	
	Design of Integrated Logistics Solutions	
③ Summary of imported fruits cold chain logistics in 2009 for Company A	Total import batches	102
	Total import quantity (tons)	3746
	Import amount (thousand USD)	1032
	Total operating revenue (thousand RMB)	700
④ Actual completed business index for the year of Company A	(Actual total revenue/Total market revenue)*100%	1.75%
⑤ Target business index for the year of company A	(Total operating revenue/Total market revenue)*100%	5.00%
⑥ Total sales revenue of imported fruits market for 2009 in Ningbo	Market revenue (million RMB)	400
⑦ Approved member of imported cold chain logistics market in Ningbo	Company A	

Source: Drawn by the author based on Ningbo Customs District People's Republic of China, Annual report (2008, 2009). Ningbo Trade Bureau. Company A.

Table 1 is the summary of Company A’s total assets, operating revenue of cold chain logistics for imported fruit and circumstance of local market. From this table, we can see some main indicators such as business performance and assets. Company A is an ordinary third party logistics company, and its performance last year was not outstanding. Its ranking is not the top among about 3,600 logistics companies in Ningbo, not to mention its ranking among about 500,000 logistics companies

nationwide<sup>1</sup>. However, Company A has four characteristics which seldom third party logistics companies have these four together. The four characteristics are:

- (a) The industry which Company A in is the cold chain logistics.
- (b) So far, in the cold chain logistics industry in Ningbo only Company A runs the business (see item ⑦ in table 1).
- (c) Third party logistics company which provides and focuses on service of cold chain logistics (see item ② in table 1).
- (d) Not a logistics member of supply chain management, which is proved by the source of business.

These are the reasons that the research of Company A has three levels of significance.

### **Corporate-level**

Foreign researchers have always attached importance to research of the performance of cold chain logistics of third party logistics, the cases such as cold chain logistics of McDonald's, women sanitary articles of Johnson & Johnson, and blood supply of American Red Cross etc. However, these case studies are based on supply chain management platform, and the targets are usually major companies, multinational corporations and nationwide institutions. Obviously, the problem of Company A cannot be solved by simply learning experience from these case studies. The researches of cold chain logistics mainly focus on cold chain external logistics and hardware of cold chain logistics. Majority of third party logistics companies in China are just like the condition of Company A. The existence of those non-members of supply chain management small and medium sized enterprises reveals that the

---

<sup>1</sup> Jones Lang LaSalle's Report. Unlimited potential for cold chain logistics market in China. 2009.9.

problems of Company A are not individual issues. Certainly that a small part of those 3PLs small and medium sized enterprises will become members of supply chain management in the future. However, most of them will be disappeared since the market competition will select the superior and eliminate the inferior. How can those companies including Company A break out of an encirclement under the market economy? The research of how to improve performance of Company A is a representative attempt.

### **Market-level**

The second characteristic of Company A tells us that up till now, only Company A does the business of imported fruit cold chain logistics in Ningbo, which means that the performance of Company A not only represents its self-performance, but also represents the performance condition of cold chain logistics industry in Ningbo. That is why the performance of Company A was not good, the local government worried too as we mentioned above. It is unthinkable that the performance of one company represents the performance condition of an industry under market economy. Is it industrial monopoly? With this question, the writer does survey of competent departments, industry association and third part logistics companies. The survey proves that despite the qualification requirement of cold chain technical staff, equipments and facilities, there is no other access restrictions. This is eligible for administration of the market provisions and international practice. The writer has not heard horizontal competition complaint either. On the contrary, there are some complaints from consumers that they bought fruit made in China pass for imported fruit.

The performance of a company represents the performance condition of an industry, which is a special case and coincidence. When we do theoretical researches, in order to illustrate the problem, we often take reasonable methods to simplify object of study. From the research point of view, both of them are run in the same groove. Usually,

when we do research of a company, we should also observe the market the company involved in. An open market usually contains many companies in competing. The competition among multiple companies is good for market. But it is a trouble for analysis of the company behavior as it is a complicated issue that we need to examine and distinguish elements of other companies. Here we only need to analyze Company A, which can give us the information of Company A itself and the development of logistics industry in that region. But analysis of these two aspects which are Company A and local logistics industry have different emphases.

Both companies and industry have paid great attention to market research. Similarly, a research of development condition of an industry in a region will draw the local government's attention, and it will also attract attention from governments in other regions in China which have the similar economic condition like Ningbo. Even it might raise concerns from central government. Significant research findings will have influence on regional industrial layout or even affect national industrial policies. As a result, the research of Company A in this thesis is a significant attempt which has an effect of "kill two birds with one stone".

### **Industrial-level**

Due to the double effects of the national industrial transformation & upgrading and the global financial crisis, agricultural products cold chain logistics has become a hot topic among enterprises, logistics industry and the central government. It has been listed as an objective in the *Information of Restructuring and Revitalization Plan of Logistics Industry Issued by the State Council (2009. No. 8)*.

It is acknowledged that agricultural products cold chain logistics business is one of most difficult business in cold chain logistics. The difficulty is that there is a benefit contradiction between logistics service level and logistics cost, not the technical implementation. It is very hard to find out a perfect balance between logistics service

level and logistics cost. In theoretical research, it usually takes sub-category of recursive methods to demonstrate the similar situation as the writer mentioned above. Fruit is one kind of agricultural products and it is put into categories by country of origin. Compare with domestic fruit, imported fruit has comparative advantage of price which is reflected in its nutrient component, freshness degree, package, brand, technical standard and management etc. Thus inspiring the writer that it is possible to use research findings of imported fruit cold chain logistics to recursively prove the feasibility of some kinds of agricultural products cold chain logistics.

## **1.2 Research Aim**

- (a) To help Company A improves its performance with conclusion and suggestion of this thesis. Furthermore, it is valuable for referencing for other small and medium sized third party logistics companies which are non-members of supply chain management to develop their business.
  
- (b) Since Company A's business represents the market condition of imported fruit cold chain logistics, the solution of improving performance of Company A also works for the imported fruit cold chain logistics market. Meanwhile, it has pointed out that although this special case was not formed intentionally by any party of the market, through the anatomy of this special case we can clearly see that a market relying on a company is dangerous for the market's development. Therefore, it is necessary to suggest the local government to make great efforts to cultivate the market and encourage more companies to participate in market competition. As a result, the market will be prosperous.
  
- (c) For cold chain logistics industry, market order is more important than government investment and preferential policies. We should advise government to strengthen market supervision, maintain the normal order of the market, which is the way to promote market development, and it is an indispensable way.

- (d) The research findings of imported fruit cold chain logistics are helpful for the development of some kinds of agricultural products cold chain logistics.
- (e) Be a case report of cold chain logistics business of third party logistics companies in China.

### **1.3 Innovation**

This paper is trying to decode how to operate the cold chain logistics business like McDonald's does. That is how to extend cold chain logistics business of third party logistics without coordination of supply chain management. The answer of this question is valuable for referencing for third party logistics companies which are non-members of supply chain management to develop their business. What's more, the answer is in line with the reality as in China the overwhelming majority of companies in logistics industry are small and medium-sized companies.

### **1.4 Literature Review**

The status quo of cold chain logistics companies of third party logistics overseas

In western countries, it has been a long standing academic atmosphere which lays heavy stress on putting companies as one of research aims when doing research of economy. Cold chain logistics of third party logistics companies are of no exception. But the theory platform of that is always the supply chain logistics and the research object mainly focused on large companies, multinational corporations and nationwide institutions, such as cold chain logistics of McDonald's, women sanitary articles of Johnson & Johnson, and blood supply of American Red Cross etc. Only a few research object is small and medium sized companies which provide high value-added services. The classical literatures and textbooks are *Corporation Logistics*



*Management–supply chain planning, organizing and controlling* (Ronald H. Ballou. 2004). *Logistical Management: The Integrated Supply Chain Process* (Donald J. Bowersox, David J. Closs. 1996). *Fundamentals of Logistics Management* (Lisa Ellram. 2005).

The status quo of cold chain logistics companies of third party logistics in China.

The research of cold chain logistics companies of third party logistics in China mainly focus on facilities and business application of cold chain logistics based on the information the writer collected, such as *Improving International Standard of Cold Chain Logistics in Ningbo Port* (Zhang Xuemin. 2007), *Construction and Application of Fresh Food Distribution Center of Jingkelong* (Chu Fanghong. 2006), *Application of JIT in Cold Chain Logistics Distribution* (Li Fang. 2007), *Cold Chain Logistics Optimization* (Zheng Hailang. 2004) ect. The writer was unable to find a report which studies the problems that third party logistics directly operate business of cold chain logistics.

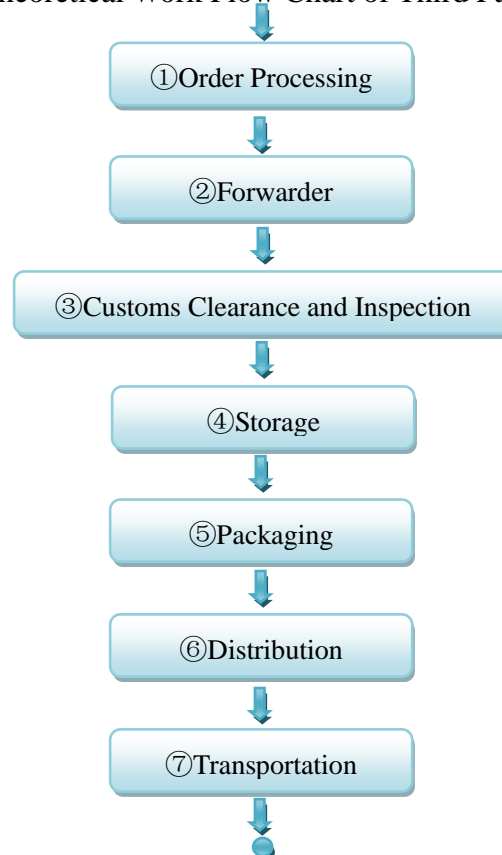
# Chapter 2 Theoretical Analysis & Variance Analysis of Cold Chain Logistics Business of Third Party Logistics Corporations

## 2.1 Cold Chain Logistics Work Flow and Third Party Logistics Corporations Based on Theory

### (a) Theoretical definition of third party logistics and work flow

The theoretical definition of third party logistics is as follows: An external service provider who provides part or all of corporation logistics function. The services include transportation, storage, packaging, distribution, finance, information processing and distribution logistics etc., and other outreach service functions which customer entrusted with<sup>2</sup>.

Figure 1 – Theoretical Work Flow Chart of Third Party Logistics



Source: Drawn by the author based on *Third Party Logistics* (Luo Wenping. Containerization.

<sup>2</sup> Luo Wenping. Third party logistics. Containerization. 1999.1: 9-10

1999.1: 9-10).

It must emphasize that the definition of third party logistics is aimed at highlighting early regular services such as transportation and storage it offers to the consignor (first party) and the consignee (second party), beside these, more important thing is that it must have value-added logistics service. This cannot be noticed from the definition and it is also very hard to understand from the flow chart. For instance, it seems that there is no difference between storage and warehouse; however, in third party logistics business, most value-added works are completed in products storage<sup>3</sup>. Mr. Ronald H. Ballou pointed out that companies are continuing doing transportation and storage activities. The novelty of this area lies in the concept of coordinated management of related activities, rather than separated administration in practice in the early days. Its novelty also lies in the concept that logistics increases the value of product or service, and the increased value is vital to improve the customers' satisfaction and sales<sup>4</sup>.

According to the logistics and supply chain management theory, the value-added activity can be allocated to each business section. In order for easy understanding, we only take three value-added sections of logistics process for instance, which are storage, packaging and distribution. The same theory can be used in others sections of logistics process.

Value-added service is the key business of third party logistics. There is no reason for the existence of third party logistics without value-added service. Without value-added service, the third party logistics cannot be prevalent and become part of supply chain of multinational corporations. It is also the reason that China chose value-added service to be the key point of logistics industry development and listed it in the "three years plan of the revitalization of the national logistics

---

<sup>3</sup> Yi Munong. Modern Logistics (English Version). Beijing: China WaterPower Press, 2006 (171)

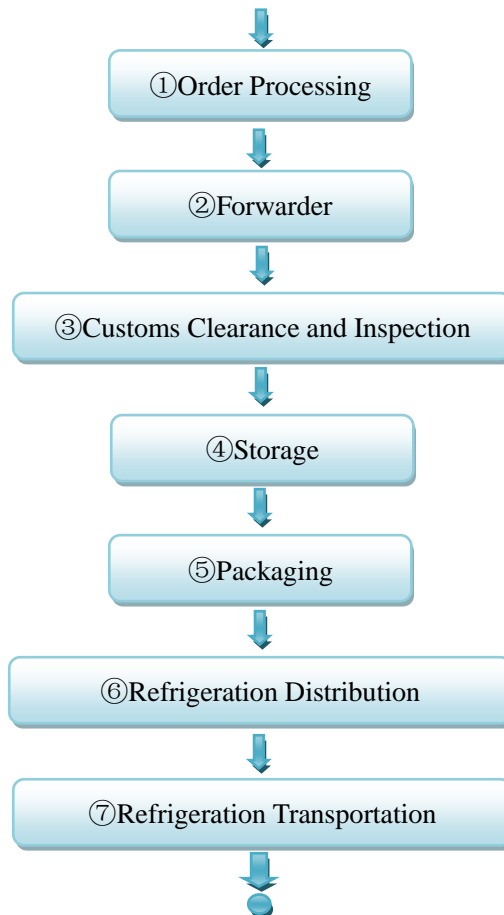
<sup>4</sup> Ronald H. Ballou. Business Logistics Management: Planning Organizing and Controlling the Supply Chain. Pearson Education, Inc., 2004:2

industry”.

Specific to companies, business is business. For the third party logistics companies which put the third party logistics business as their major business, the key point of their business is value-added service. Otherwise, their locality of profit is equal to the traditional logistics service, which means there is no space for them to develop and expand their business in the future.

(b) Theoretical work flow of cold chain logistics

Figure 2 – Theoretical work flow chart of cold chain logistics



Source: Drawn by the author based on *Third Party Logistics* (Luo Wenping. Containerization. 1999.1: 9-10).

Figure 2 is the work flow chart of cold chain logistics. Compare figure 1 with

figure 2, we can see that the only difference between them is the name of section six and section seven.

## 2.2 Case of Cold Chain Logistics of a Third Party Logistics Company

Here the cases cited by the industry as: "McDonald's cold chain logistics case", perhaps because of its good reputation. In fact, the "McDonald's cold chain logistics case" introduces U.S. HAVI Logistics Group which is the real logistics implementer of McDonald's supply chain management. Therefore, to be more precisely, the "McDonald's cold chain logistics case" should be called the "U.S. HAVI Logistics Group case".

Table 2 – Basic Information of U.S. HAVI Logistics Group

Name	U.S. HAVI Group
Capital Nature	Private Investment
Scope of Business	Logistics Distribution
	Shipping
	Refrigeration Equipment Leasing
	Promotion and Toy Design
Organizational Structure	Main business of each company:
	HPR Pateners - logistics distribution (the company who is in charge of McDonald China's logistics is a branch of HPRPateners in Asia Pacific)
	Perseco - shipping
	Primms - refrigeration equipment leasing
	Themarketingstore - promotion and toy design
	Alpha - logistics distribution service of McDonald's Europe
Information Processing System	Order Processing
	SMS Platform
	GPS Cargo Dlivering Tracking
	Storage Management
	Client Relations Maintenance System

Multi-temperature Logistics Center (take Beijing base for example)	Cold Storage House	Storage capacity (ton)	1400
		Temperature range (C °)	-18~1
	Normal Temperature Storage House	Storage capacity (ton)	2000
Owned Transport Capacity & Configuration	Refrigerator Truck (5~20 tons)		40
	Portable Generator Refrigeration System		√
	Global Positioning System (GPS)		√
Value-added Services	(take McDonald's for example)		
	Basic Food Transport		
	Information Processing		
	Storage Control		
	Labeling		
	Provide consulting service for fruit & vegetable suppliers who are upstream suppliers of McDonald's		
	Production and Quality Control bread: 24,000 pieces/hour lettuce and mix vegetable processing: 1500 kilogram/hour		
Charges of Value-added Services	take the transportation of food of McDonald's Beijing for example: 50 cents/ton (market price: 40 cents/ton)		
Target of Supply Chain Management Service	McDonald's all over the world		
	Pizza Huts		
	Starbucks		

Source: Drawn by the author based on Homepage of HAVI Logistics Group

<http://www.havi-logistics.com>

## 2.3 Cold Chain Logistics Work Flow of Logistics Company A

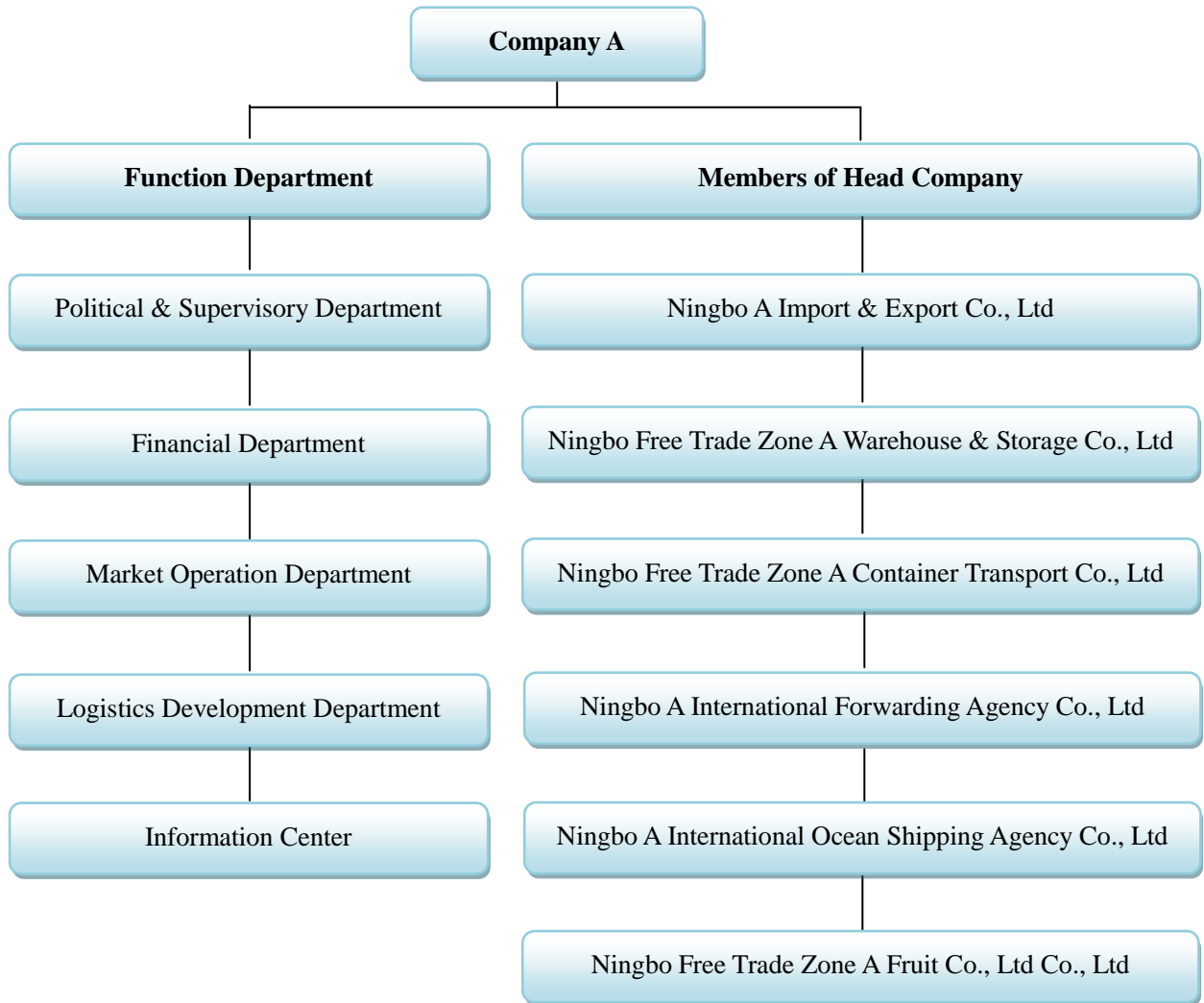
Basic information of Company A is as follows:

Table 3 – Basic information of Company A

Name	Company A		
Capital Nature	Private Investment		
Scope of Business	Freight Fowarder & Shipping Agent		
	Customs clearance & Inspection Application		
	Warehousing		
	Distribution		
	Cold Storage		
	Import & Export		
	Design of Integrated Logistics Solutions		
Organizational Structure	Function Department	see in figure -3	
	Members of Head Company	see in figure -3	
Information Processing System	Order Processing		
	SMS Platform		
	GPS Cargo Dlivering Tracking		
	Storage Management		
	Client Relations Maintenance System		
Multi-temperature Logistics Center (take Beijing base for example)	Cold Storage House	Storage capacity (ton)	1000 0
		Temperature range (C °)	-25~ 5
	Normal Terperature Storage House	Storage capacity (m <sup>3</sup> )	1000 0
Owned Transport Capacity & Configuration	Refrigerator Container Truck		50
	Portable Generator Refrigeration System		√
	Global Positioning System (GPS)		√
Value-added Services	None		
Charges of Value-added Services	None		
Target of Supply Chain Management Service	None		
Recommendation by Logistics Industry	1. So far, Company A is the largest professional transport team of refrigerator container trucks in Ningbo.		
	2. The most advanced functional cold supply chain service platform		

Source: Drawn by the author based on data from Company A.

Figure 3 – Organizational Structure of Company A



Source: Drawn by the author based on data from Company A.



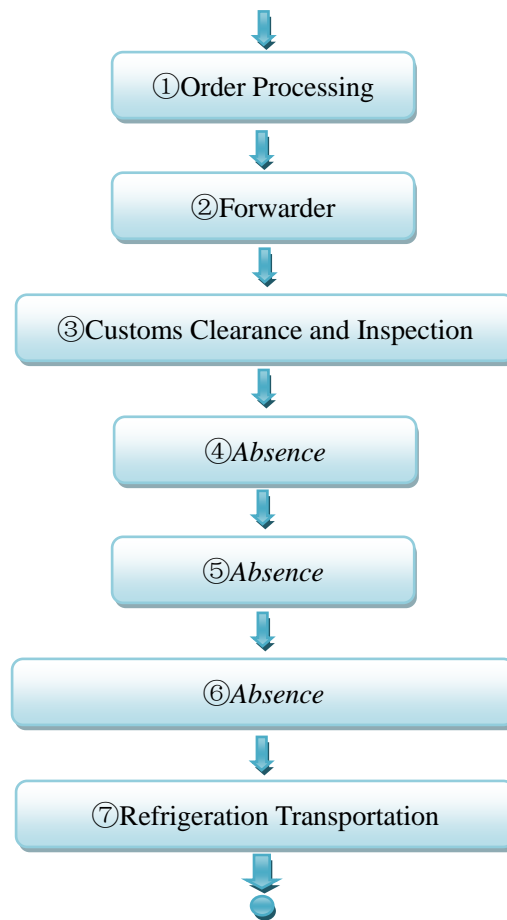
Basic information of imported fruit cold chain logistics industry in Ningbo 2009 is as follows:

Table 4 – Basic information of imported fruit cold chain logistics industry in Ningbo

Background	The State officially approved Ningbo Port to establish as designated port of entry of imported fruit in April 2009.		
	Before April 2009, most of imported fruit in Ningbo was come from Guangzhou, the rest of imported fruit in Ningbo was come from Xiamen.		
Relevant data after establishing port of entry of imported fruit	Statistics of imported fruit entry in Ningbo Port		
		2009	compare with 2008 (%)
	Batch in Total	102	684
	Total Weight (ton)	3746	1354.7
	Value of Import (USD)	10.32 million	10.276 million
Imported fruit consumed by Zhejiang Province	Market Value (RMB)	4 billion	
Imported fruit consumed by Ningbo City	Market Value (RMB)	0.4 billion	2 billion

Source: Drawn by the author based on :Ningbo Customs District People's Republic of China, Annual report (2008, 2009). Ningbo Trade Bureau. Zhejiang Fruit Marketing Association.

Figure 4 – Imported fruit work flow chart of cold chain logistics of Company A



Source: Drawn by the author based on data from Company A

Figure 4 shows company A did the cold chain logistics business for 102 batches of imported fruits during year 2009. The fruit was sent to Tier-one Agent in Ningbo directly after Customs Clearance.

#### 2.4 Difference Analysis between Practice and Theory

From figure 4 we can clearly see that the actual business flow of Company A is lack of storage, packaging and refrigerated distribution comparing with table 3. However, the missing links are the main source of profit for third party logistics companies.

In case of HAVI Logistics, compare table 2 with table 3, we can see that:

- (a) From cold chain hardware aspect such as technology facilities, equipments and transportation, Company A is no less advanced than HAVI (Beijing) Company. Even the refrigerator volume and temperature control are better than that of HAVI (Beijing) Company.
- (b) From organizational management structure aspect, these two companies are varied. HAVI is an independent operational company under the group company. It is “project-oriented organizational structure (linear)”, managed vertically. Company A, however, is “functional department” and “member enterprise” under the group company. It is “function-oriented organizational structure (matrix)”. Two managerial functions have overlapping.
- (c) From main business lines aspect, link 8 (value-added service) and link 10 (supply chain management target of service) of Company A is absent comparing with HAVI.
- (d) From primary operating revenue aspect, take transportation for an example, the freight charge of Beijing cold chain logistics transportation market was 0.4 Yuan per ton, however, McDonald paid 0.5 Yuan per ton to HAVI. The price difference of 0.1 Yuan is McDonald paid for value-added services such as labeling and information management etc. HAVI’s revenue can be 25% higher than non-supply chain managing members from only the item of transportation revenue.

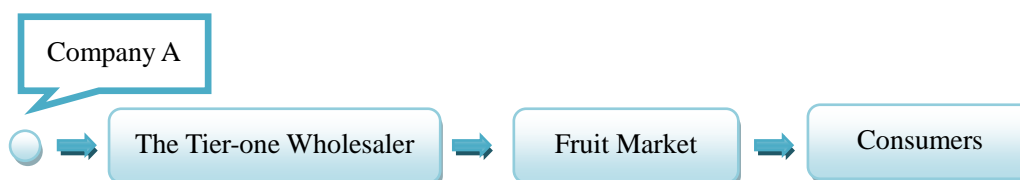
From the above theoretical analysis and case study, we can make the following judgments for Company A:

- (a) There is no deficiency or problem in terms of hardware or equipments.

- (b) There are some problems in business development of Company A, such as the organizational structure did not match the business development.
- (c) There are some problems in business administration, such as lump sum freight incur logistics cost control issue.

In order to resolve the problems on business development and company management, we should solve business development problem first and then proceeding enterprise management innovation. To solve the "best game no one played" issue of imported fruit cold chain logistics business, we should not only find out the reasons from Company A itself, but also find out the reason from the market/customers. It shall also rely on the improvement of the external environment. A pressing matter of the moment is to try to figure out the breakthrough point of value-added services. Figure 5 is the customer chain of Company A.

Figure 5 – Customer Chain of Company A



Source: Drawn by the author based on data from Company A.

To a large extent, the success experience of HAVI Logistics is relying on McDonald's. In the early days, McDonald's outsourcing requirement induced the first value-added logistics service of HAVI Logistics. Up till now, HAVI Logistics has already become one part of McDonald's supply chain management and its role is beyond logistics part. From figure 5 it can be seen that the first level key account of Company A is the Tier-one Agent of fruit market in Ningbo. It is

obvious that kind of wholesale agent does not have the sense of supply chain management and business strength like McDonald's. From last year's business batch which was 102 batches in total, we can see that none of them were value-added business. So it seems that the wholesale agent will not require Company to do any value-added service. Limited to the regionalism of imported fruit business, Company A cannot be the "HAVI Logistics" in the imported fruit business of cold chain logistics industry without value-added service requirements from supply chain management vendors of imported fruit. How can Company A cope with this problem?

Theoretical model of third party logistics operation tells us that there are three modes to choose from:

- (a) The first one is third party logistics mode which aims at individuation logistics service. In this mode, the logistics service provider is not only relying on providing some regular services, but using information to combine its consultancy with client's practice thus creating new value as well. Transforming its industry competitive edge into new productivity source and integrating it with clients. To be "customer-oriented" business philosophy, try best to understand client's production intent and focus on customer's satisfaction, meet customer's needs and integrate target business.
- (b) The second one is the third party logistics mode which aims on increasing value added services. Logistics is an industry which creates value for merchandises. It can create value during order processing, warehousing and storing, transportation, loading and unloading, packaging, circulating and information processing. Without value-added service, the third party logistics company is only a small profit enterprise. Traditional measures of market expansion is increasing number of customers in order to increase the profit. However, there are restrictions under this measure. Increasing merchandise

value through logistic activities breaks away the traditional measure. It considers the breadth and depth. Such logistic service not only make customer feel convenience, but also adds value to merchandise and increase logistic profit.

(c) The last one is the third party logistics mode which aims on providing integrated logistics agency service. Third party logistics company provides integrated logistics service to customers. Some of the services may not be provided by the logistics company itself; it may consign part of the service to other specialized service provider. During the entire operation, the third party logistics company does not need to make investment on fixed assets, but only utilizes their matured third party logistics management experience to provide high quality service for customers<sup>5</sup>. Comparing these three modes, there may be no mode completely suitable for company A. However, appropriate is the best. By considering company A's situation and customer chain (wholesaler, Ningbo fruit market, end user), company A may consider to primarily adopt second mode, but integrate the first and second mode to exploit the value added market for cold chain logistics.

In oversea countries, most circumstance was that the industry chain head integrate the upper and lower industry chain. However, most of the small to medium size enterprises in China such as Company A does not have such luck to work with McDonald such as an industry head. What can Company A do? What can the many logistics companies in China do?

---

<sup>5</sup> Liu Wei. Modern Logistics. Beijing: China Yan Shi Press. 2004 (53)

## **Chapter 3 Development mode of cold chain logistics of third party logistics which are Non-supply chain members**

### **3.1 In Defect of McDonald's Development Thinking about Cold Chain Logistics**

There is few cases about third party logistics doing cold chain logistics business. Here is the case that Japanese businessmen promoted chocolate. In the early days, in order to increase the sales volume of MARY chocolate which was imported. The Japanese importer did a market survey and they had found out that most buyers were women. At that time, Japan was affected by the U.S. women's liberation movement, the Japanese women wanted to grasp the initiative in love relationship. The importer of MARY chocolate smartly captured the hearts and minds of people that time and agitated women for buying chocolate to men at Valentine's Day. Later, the Chocolate and Cocoa Association of Japan established February 14th every year as Chocolate's Day. Therefore, the demand climbed sharply and became a tradition in Asia.

The writer did not find the data of chocolate sales in Ningbo, but found sales statistics of imported chocolate in super market in Qingdao as figure table 5 shows. According to the data from National Bureau of Statistics of China, the per-capita disposable income between Ningbo and Qingdao are similar, thus based on table 5 we can conclude that Chinese consumers prefer imported chocolate in spite of its high price because of its brand, high quality and delicate packing. These three indicators are worthwhile for reference in table 5.

Table 5 – Statistics of sales of chocolate (imported and domestic made) in supermarket in Qingdao

	Imported Chocolate (country)	Chocolate made in China (brand)
① Country of Origin	Belgium/France/Italy	Dove
		HERSHEY'S
		Cadbury
		Leconte
		LOTTE
	Tresor Dore	
② Price with same weight (RMB/box)	20~350	12~175
③ Price in Rate (%)	140~150	100
④ Daily Sales (RMB)	100000	
⑤ Quantity of Sale Comparison (qualitative)	Many	Few
⑥ Value of Sale Comparison (%)	100	100
⑦ Recommendation from Consumers	Eye-catching Packaging	Packing needs to be improved
	Delicacy	Normal taste
	A choice of gift	

Source: Drawn by the author based on *Competition between Foreign and Domestic Chocolate*.

Qingdao News 13th February, 2008. <http://www.qingdaonews.com>

(a) Item ② and item ③ are the price of imported chocolate is 40%~50% higher than that of domestic chocolate.

(b) Item ⑤ and item ⑥ reveal that though the sales volume of domestic chocolate is larger than that of imported chocolate, the sales income of them both are the same, which means that imported chocolate has competitive advantage of brand and quality.

(c) Item ⑦ indicates that packaging is one of the major indicators attracting consumers to purchase.

In fact, the verdict of the modern logistics theory said that packaging can boosts



sales. Packaging and packaging technology are the key elements of the modern logistics. There are three functions of packaging which are protection, convenience and promotion.

Category by role in circulation:

- (a) Transport package. Transport package can also be called industrial packing and outer packaging. The main objects of transport package are satisfying the needs of transportation, storage and handling. It is used for ensuring products' safety, convenience of transportation, storage and handling, accelerating the taking-over and examining item by item etc.
- (b) Promotion package. The primary purposes of promotion package are sale and arrive at the destination with the contents. It is used for protection, embellishment and promotion of items.

Category by forms:

- (a) Small package. Small packing is the form that packaging an item as a sale unit. The wrappage is assembled with item as a whole and the wrappage is sold to the customers with items. The objects of the wrappage are sale, protection, embellishment and promotion of items.
- (b) Medium package. Medium packaging is a whole packaging which is consisted of several items or packaging. Small package and medium package belong to sales package.
- (c) Outer package. Outer package is also called transport package.

There are plenty of successful cases which transfer big package into small package the typical case is ARAWANA which is an edible oil producer. Nowadays, almost every super market in China sells ARAWANA oil and Chinese consumers are used to buy a barrel of ARAWANA oil in the market when they eat up edible oil at home. However, when the ARAWANA oil with five liters volume landed China market many years ago, most Chinese consumers were buying edible oil by using bottles to fill edible oil from a large pail in the food shop. Very few people bought ARAWANA oil for self use because of its high price. At that time most of them buying ARAWANA oil was used as a gift because of its proper volume and good-looking package. Up till now, many other edible oil producers like ARAWANA oil pattern have good market in China and it is worth noticing that there is no longer price gap between imported edible oil such as ARAWANA oil and domestic edible oil producers. Plenty of small package items such as rice and multigrain have become part of daily commodities in Chinese families. This case not only reveals that small package can improve sales, but also can change people's consuming behavior. It is the value-added service that Yihai Kerry edible oil import & export corporation, the importer of ARAWANA oil, did by using small package edible oil to develop market.

From all these above cases, although Qingdao is not exactly the same with Ningbo, it does not affect the result we obtained:

Firstly, besides using the existing sales approaches of shops to increase sales volume, the importers can use other approaches to develop business according to the market characteristics.

Secondly, promotion approaches can begin by improving package.

### 3.2 Independently Developing Value-added Service of Third Party Logistics

Without having strength supply chain organizer like McDonald's, there is only one way for Company A, the imported fruit company of cold chain logistics, to expand business, which is independently developing value-added service according to local situation such as selling the products to the tier-one wholesalers and shops. The most feasible approach for the prophase is to choose improving package as a breakthrough point.

Packaging service is eligible for value-added service of third party logistics theory and it can also minimize the risk of investment. What's more, having packaging service, its service can extend to distribution service. In practice, transforming transport package into sales package usually is one of the prerequisites of distribution service. Thus, value-added service can be done step by step like chain reaction. Under an open competitive market and driven by mutual interest of win-win situation, the proposal of Company A, which is using package improvement as a breakthrough point of value-added service will get response by key account and fruit market. In addition, the experience of market tells us that some foreign suppliers can support part of promotion fees such as advertisement.

Table 6 – Performance objectives of value-added services of Company A

	Year 2009		Revenue of Company A (%)	Revenue of Company A after Implementation (%)
	Total Batch	102		
	Total Weight (ton)	3746		
	Value of Cargo (USD)	10.32 million	10	10
Imported Fruit Consumed in Ningbo City	Value of Cargo (RMB)	0.4 billion	1.7 million	0.5 billion
Imported Fruit Consumed in Zhejiang Province	Value of Cargo (RMB)	4 billion		0.5 billion

Source: Drawn by the author based on data from Company A.

To put this business proposal into effect, we should get guarantee from organizational structure. “No matter how excellent some governor is, outstanding achievement cannot be achieved without excellent organizational structure. Therefore, improving organizational structure usually can improve achievement.”<sup>6</sup>

### **3.3 Choose of Organizational Structure Patterns for Third Party Logistics**

How to improve the organizational structure of Company A?

Five types of organizational structure based on theory:

- (a) Henry Fayol functional structure/Functional structure (linear structure, extend to flat structure).
- (b) Alfred. P. Sloan decentralized federal structure/Decentralized federal structure /Matrix organization structure
- (c) Group organization/ Project-oriented organization
- (d) Simulation of decentralized management structure
- (e) System structure

From the above five types of organizational structure we can see that the current organizational structure of Company A is Alfred. P. Sloan decentralized federal structure. In order to make the problem more focused and made the proof process clear, the writer sorted out table 7 which is based on Peter F. Drucker’s Management: Tasks, Responsibilities, Practices (Harvard Business Review, 1974, 1-2). Peter F. Drucker is the discoverer of the black continent theory of logistics and he is also a

---

<sup>6</sup> Peter F. Drucker. New templates for today’s organizations[J]. Harvard Business Review, 1974, 1-2

guru of management.

Table 7 – Five kinds of organization structure and applicable enterprise types

Types of Organizational Structure	Principle & Feature	Applicable Enterprise Types
Functional structure	Enterprises establish a management department under the functional institution that is vertically responsible.	Common manufacturing company
Decentralized federal structure	Based on power segregation and central control which is suitable for large, single product and market company's management. It is outstanding for managing the known problem. This type of company is "management oriented enterprise", which is not appropriate for starting enterprises.	Car manufacturing company
Project-oriented organization	Appropriate for those enterprises need creativity, innovation, and to complete special jobs.	Completing special jobs and strengthen the senior management and technically innovative company
Simulation of decentralized management structure	Suitable for the enterprises whose organizational structure is too complex and is unable to retain functional organization and over unitary which is difficult to realize actual segregation of duties.	Nonferrous metal, steel and iron, other materials, computer, chemical, pharmaceutical companies and banks
System structure	A combination of project-oriented organization and stimulation of decentralized management structure	Multinational companies, or the organizations similar to those need to manage large number of independent organizations such as state or governmental departments, research institutions, universities.

Source: Drawn by the author based on *Management: Tasks, Responsibilities, Practices*. (Peter F. Drucker. Harvard Business Review, 1974, 1-2)

From the principle and features of Alfred. P. Sloan decentralized federal structure and the applicable enterprise types of Table 7, we can see that the organizational structure of Company A is management-oriented, neither the innovation-oriented nor the business development-oriented. The business development of Company A focuses on the implementation of value-added service. To achieve this goal, Company A needs an organizational structure which is propitious to new business development and business innovation.

According to the organizational structure which is propitious to business development and the situation of Company A, the project-oriented organizational structure is suitable for the improvement of structure of Company A.

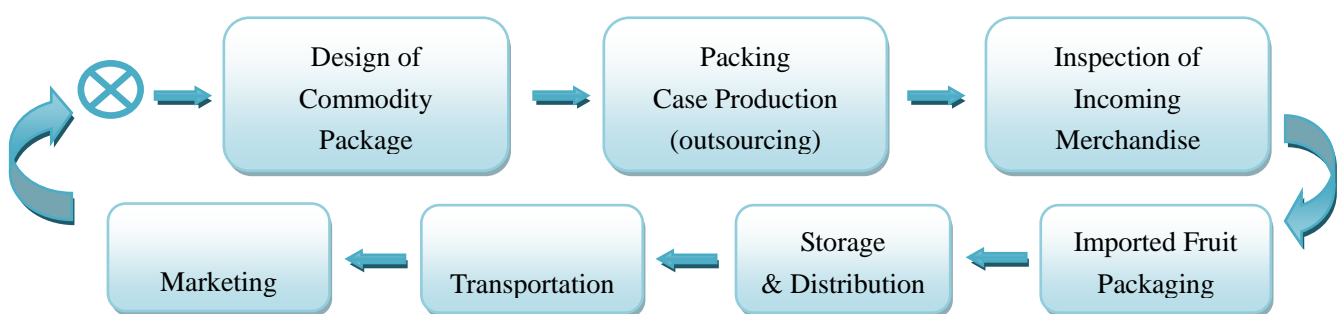
From the organizational structure of HAVI Logistics (see in table 2) we can see that among its five businesses which are logistics distribution, shipping, refrigeration equipment leasing, promotion and toy design. Distribution service in Europe belongs to five second-level companies of HAVI Logistics Group and they operate separately. The distribution service of HAVI Logistics Group itself is belonging to HPR Pateners in charge, which includes business of McDonald's in China. There is no business cross among second-level companies, each of which is only report to Group. This kind of organizational structure is Project-oriented organizational structure. What kind of organizational structure Company A shall choose. It is exactly the same as HAVI Logistics Group, which means that it is feasible for Company A to use Project-oriented organizational structure.

Theoretical derivation and practice all prove that it is feasible for Company A to choose Project-oriented to adjust the current organizational structure. However, we do not suggest that using Project-oriented structure completely replace the current Alfred. P. Sloan decentralized federal structure of Company A during the implementation stage, because when the theory of organizational structure affirming the advantages of five types of organization structures respectively, meanwhile it pointed out that in

practice there is no enterprise including logistics enterprises and supply chain enterprises has a pure and single organizational structure. Besides, the organizational structure readjustment of each company at each time cannot be done once for all. That is one of the reasons that the writer does not suggest that using Project-oriented structure completely replace the current Alfred. P. Sloan decentralized federal structure of Company A. Another reason is the continuity need for other business of Company A. Therefore, the writer suggests that in order to achieve the goal that enhancing the performance of "value-added services of imported fruit packaging", Company A should integrate its cold chain logistics company and imported fruit business-related departments. It should also set a second-level independent company which runs cold chain logistics distribution business. The second-level company should be run independently and straight report to the group.

Following is the flow chart of package improvement of imported fruit which is the value-added service that the cold chain logistics development company needed to follow.

Figure 6 – Work flow of development of packing value-added service



Functions of ⊗ is processing information feedback and controlling sales target.

Source: Drawn by the author.

When the cold chain logistics development company effectively completes the first cycle of package improvement of value-added service flow in good order, the

feedback from the market will be seen. In a normal market order, having product and market, the only thing the enterprise should do is to make the product more marketable according to the feedback from the market. A normal market order usually has those elements which are both seller and consumer obeying the regulation, doing square deal, fulfilling obligations and responsibilities, and formation of trading reaction. However, in real world things are not always that simple.



## Chapter 4 Market Order of Cold Chain Logistics

### 4.1 “Bad money drives out good” in Cold Chain Logistics Market

The typical example of “bad money drives out good” in cold chain logistics is the “melamine contaminated milk powder” event. Before we starting take imported fruit cold chain logistics market as an example for analysis, let us see one more case about agricultural product of cold chain logistics. At the beginning of the year 2010, one section of a research proposal from the Ministry of Commerce of the People’s Republic of China described the status quo of vegetable of cold chain logistics, which said that in the process of vegetable transportation from wholesale market in Shouguang (a city of Shandong Province) to wholesale market in Mawangdui in Changsha (a city of Hunan Province), the temperature control measure during transportation it took was to use cotton quilts to cover trucks and use bottles of iced water to reduce the temperature. After arriving at the destination, taken off the vegetable damage cost due to the unreasonable transportation measure from the total revenue, the remaining vegetable has 120 cents profit per kilogram. However, if we took refrigerator car to transport, the profit will almost become zero, or the situation will become even worse that the profit cannot cover the transportation cost.

The most pressing issue of the imported fruit cold chain logistics market is that some domestic fruit imitate and sell as imported fruit. The brand, quality, package of fruit from foreign origins, and the consumer psychology of domestic consumers cause the price of imported fruit is 10~20 times higher than that of domestic fruit. Because of this, some unscrupulous and mercenary traders ignoring the market regulation intentionally and use the domestic fruit which is introduced variety to pretend the imported fruit. The most common approaches are selling Xinjiang produced red grapes as America imported red grapes, selling Hebei produced apples as America imported red delicious, attaching New Zealand kiwi fruit label to Zhejiang produced kiwi fruit etc. What the unscrupulous and mercenary traders have done depresses the

imported fruit market and seriously aggrieves the customers' interests. The situation not only happened in Ningbo, but also happened in its surrounding cities such as Hangzhou and Shaoxing. There is no need for reticence that according to query statistics, fruit markets in large and medium-sized cities in mainland China are all awash with fake imported fruit. The most significant example is that in Tianjin fruit market 40 per cent of imported fruit is fake (Tianjin Commodity Inspection Bureau, 2006). This kind of market condition is improper. If we do not check and repress this kind of disturbing market order things and let it to spread, it certainly will inevitably lead to "bad money drives out good" happen in imported fruit market. As a result, it will cause weakened consumer group and reduction of consumption desire, which do not only affect expected sales growth, but also spear to the entire industry chain: reduction of consumers' purchasing---reduction of retailers' restocking---the tier-one wholesaler reduce stocking and order of imported fruit ---reduction of cold chain logistics business of imported fruit. If this vicious cycle will really happen, only from the industry development perspective, the whole imported fruit cold chain logistics industry will suffer a fatal blow. As a result of this, the companies not only eager to develop products, but also look forward to rectifying and restoring market order. In fact, the imported fruit market is not the only one that forged and fake commodities raid, other markets have been affected too. According to the logistics research proposal from Ningbo Administration for Industry & Commerce, "regulate market order" has become the most concerned service issue which the majority of logistics companies in Ningbo hope the government to enhance. Rather than putting "increasing investment" or "preferential policies" to the first place as it used to be.

#### **4.2 Significance of Normal Market Order**

It has been quite a long time that once when we talk about how Chinese government supports the development of logistics industry, the highest frequency of suggestions we have heard were "increasing investment" and "preferential policies". These

above two measures are the solutions of “professional logistics supply ability insufficiency” from the social logistics research prospective. The promotion effect of “increasing investment” and “preferential policies” on logistics development is positive and it is also has positive effect on other industrials. In terms of logistics industry, it is especially important for national and local governments to enhance support of logistics infrastructure and preferential policies. As for Ningbo City and other districts in China which have the similar economic condition with Ningbo City, at the present stage, “regulate market order” is overweight “increasing investment” and “preferential policies”. Table 8 shows the basic situation of logistics companies in Ningbo City.

Table 8 – Basic information of logistics companies in Ningbo

Total Number of Logistics Companies		3162
Scale of Logistics Companies	Registered capital $\geq$ 50 Million RMB	59
	Percentage of total (%)	1.6
	Percentage of companies whose total assets $\leq$ 100 Million RMB (%)	96.2
	Percentage of companies whose number of employees $\leq$ 100 (%)	93.2
Year 1999 to 2009	Annual average number of new entries	316
	Annual average increase rate of new logistics companies (%)	16.4

Source: Drawn by the author based on Ningbo Trade Bureau.

As the table shows that during a period of ten years (from 1999 to 2009), there were 36 logistics companies entered the market per year in Ningbo City, the average growth rate of new-entered corporations was 16.4%. Up till now, there are 3612 logistics companies in Ningbo City. All these companies were established before national and local governments publishing increasing investment or preferential policies. Ningbo City is an export-oriented economy city, from 2008 to now, the impact of the global financial crisis still exists. There is no clear sign that the total business volume has been recovered yet, and some industries are still under the

condition that trying to escape from the downturn and reducing the profit loss. As we all know that businessmen never do things without purpose. Every year, a lot of new logistics companies come into being and survive, which hints that logistics business has good prospects of grain and the logistics market foreground is vastitude. If we have a look at the functions and business volume of these new-entered companies, basically, they are all single-function and small-volume business companies. The competition between them is low level industry competition. It is also a sign of industry disorderly competition which was caused by chaotic market order. It does not match the international trend in today's world that developing third party logistics and forth party logistics and improving comprehensive ability of service (logistics and supply chain management). It does not match the national industry policy either. Under such a circumstance, if government increase investment or publish new preferential policies, it certainly will encourage this tendency, and produce exactly the opposite results.

The implementation of rectifying market order is the least controversial one comparing with increasing governmental investment and publishing preferential policies. This approach can not only satisfy the need of consumers, corporations and dealers' interests, but contribute to bring market resource allocation into play as well. What's more, after "survival of the fittest", the logistics companies and the supply chain companies can be integrated. More important, keeping market order is essentially one of the major responsibilities of government under market economy.

Under the condition of market economy, the responsibilities of government are to make and execute economic policies, to guide and support man of enterprise with material and spiritual help, rather than directly intervening business affairs. The responsibilities of government are to utilize all the measures which market economy system allows creating necessary condition and appropriate circumstance for the trouble-free operation of market economy. Boehm Roepke, a German economist of Neoliberalism Economics, who drew an analogy between the government and the

judge of a football match. Boehm said that the government was just like the judge of a football game, and individuals were like football players. During the football match, the judge neither kicked the ball nor gave confidential instructions in person. These things were just between the football players and their coach. The responsibilities of the judge were to impartially ensure the game rules had been observed.

As we all know that pursuing market economy does not certainly lead to rational allocation of resources, particularly in the developing process. Nothing can be accomplished without norms or standards. Only with fairness and justice of market order, the resources can be optimized and rationally allocated by the market.

The condition of imported fruit market in Ningbo City and the disorder competition among logistics companies in Ningbo City once again prove that good market order relies on market regulations. Without market regulations, the market will become disordering. This does not only hamper the efficiency of market regulation effect, but also hinder the normal operation of the whole national economy and destroy the realization of national industrial development goal. Therefore, the government shall focus on developing logistics industry and conforming market system in order to make market economy running smoothly and exert its resource distribution function effectively.

In order to intensify the enforcement of regulations, one aspect we should do is to consolidate management and enforcement of actual market. Also, there shall be laws to abide by so another aspect we should do is to improve the relevant laws and strengthen technical standards. Therefore, the inner demand of market operation and the market regulations on the basis of law can be translated into legal norms of market operation. In consequence, market regulations have dual natures. One of the dual natures is the internal objective prescriptivity of the market, the other one of the dual natures is the forms of internal objective prescriptivity of the market. In general, the market regulations usually refer to the form of law of internal prescriptivity of market

operation. To be more specific, two businesses which cold chain logistics do are imported fruit and agricultural products. If we can really achieve those two aspects of intensifying the enforcement of regulations, the “domestic fruit imitate and sell as imported fruit” will be effectively controlled. Therefore, the market value can be embodied in the freshness and the technical content of nutritive index of chilled vegetables coming from Shouguang (part of Shandong Province). Furthermore, that kind of market value will be gradually accepted by consumers. Just like green food (organic food) which is rapidly growing in popularity overseas and its price is relatively higher than other food. Now in China, more and more people have realized that the good effect of green food brings to us.

Keeping long-lasting effect relies on establishing long-term market mechanism and system. Otherwise, it cannot last long and make matter worse<sup>7</sup>.

### **4.3 Rebuilding Market Order by Information Technology**

The effectiveness on safeguarding the market order of cold chain logistics from enhancing standard construction is depending on the cooperation and coordination of market regulator, consumer and enterprise these three parties. Enterprises would fulfill their rights and obligations as required by rule. Consumers especially the personal consumers were of some limitations such as information asymmetry, expenses and time. Although functional department would protect consumers' right as required by law, this usually happened after the dispute occurred. This circumstance must be turned in order to improve the market confidence and facilitate the standard construction, or the consumers would be the short slab of the bucket.

The key of the question is that the consumers who were in a weak position were the core of the market. Enterprises, government and regulators must rely on the

---

<sup>7</sup> General Administration of Quality Supervision Inspection and Quarantine of the People's Republic of China. Text book of Quality Technology Supervision Law. Beijing: China Textile & Apparel Press. 2008: 175

purchasing of consumers to improve performance, develop market and keep market order. As a result, the “hard rights protection” problem must be solved before rebuilding the market order by standard construction.

As per the statistics from consumers association, most of the consumer disputes were occurred after the consuming behavior, and the primary reason was information asymmetry. In the other word, many disputes can be avoided if there were a way for consumers to obtain accurate information regarding such products, for example, identity of authorized agency and verification of products alethic. It is not difficult to realize by using the information technology nowadays. Actually in reality, some enterprises have already been taking steps. For example, consumers may make a call to verify the alethic of YangChengHu hairy crab.

By referencing to some companies’ activities, enterprises, regulators or other parties may provide consumers the information such as product source and manufacturer identity by internet, text message and telephone, etc before the purchasing in order to significantly reduce the consumer disputes.

Based on it, we may collect all the information together and build a product information database in order for consumers to obtain the information of products. The effect of these services is to help consumers obtain the information of the products that they concern, see the advantages of standardization and improve the consumer confidence which would implicitly facilitate the rebuilding of market order.

When consumers are confident that they are able to buy the real products, the demand will increase and as a result more sellers would join the market. Consumers have many choices and the price would decrease. This is the market rule and also the contribution of the market.

## Chapter 5 Conclusion

According to the demand of the market, third party logistics companies which are non-members of supply chain management can expand business and improve performance through independently developing value-added service.

Since the special relationship between imported fruit cold chain logistics market and Company A, the outstanding performance of Company A will drive performance of imported fruit cold chain logistics market as a consequence. Although this mode as we mentioned above is in favor of theoretical research, it is harmful for the development of the market. Therefore, it is necessary for the government actively guiding more companies participate in imported fruit cold chain logistics market competition.

Through the analysis of imported fruit cold chain logistics business of Company A, we can see that the market order has direct influence on sales. As one kind of agricultural products, the condition of imported fruit to a large extent reflects the condition of agricultural products. Nowadays, there is an increasingly concern regarding food safety and food nutrition, so it is the chance to resolve the “best game no one played” problem. The “best game no one played” means that although the commodity with good quality, consumers cannot identify and confirm what it is because so much fake goods flooded the market, thus the commodities are hard to sell and the sellers cannot make profit. The priority of the government is to regulate the market thus making consumers have confidence in consuming those commodities.



## REFERENCE

- Arino, 2003 A. Arino, Measures of strategic alliance performance: An analysis of construct validity, *Journal of International Business Studies* 34 (1) (2003), pp. 66–79.
- Baldiwala, 2001 Q. Baldiwala, Developing a global supply chain, *Logistics Spectrum* 35/4 (2001), pp. 25–29.
- Ballou, 1999 R.H. Ballou, *Business Logistics Management. The Planning, Organizing and Controlling of Supply Chain*, Prentice-Hall, Upper Saddle River, NJ (1999).
- Bogataj, 1994 M. Bogataj, Optimal control of hereditary inventory systems with short time conservation effects, *International Journal of Production Economics* 5 (1994), pp. 241–244.
- Bogataj et al., 2005 M. Bogataj, L. Bogataj and R. Vodopivec, Stability of perishable goods in cold logistic chains, *International Journal of Production Economics* 93-94 (2005), pp. 345–356.
- Carayannis et al., 2000 E.G. Carayannis, S.K. Kassicieh and R. Radosevich, Strategic alliances as a source of early-stage seed capital in new technology-based firms, *Technovation* 20 (11) (2000), pp. 603–615.
- Carr and Pearson, 2002 A.S. Carr and J.N. Pearson, The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, *International Journal of Operations and Production Management* 22 (9) (2002), pp. 1032–1055.
- Chang, 1996 D.-Y. Chang, Applications of the extent analysis method on fuzzy AHP,

European Journal of Operational Research 95 (3) (1996), pp. 649–655.

Chen et al., 2006 C-T. Chen, C-T. Lin and S-F. Huang, A fuzzy approach for supplier evaluation and selection in supply chain management, *International Journal of Production Economics* 102 (2) (2006), pp. 289–301.

Dabbene et al., 2008a F. Dabbene, P. Gay and N. Sacco, Optimisation of fresh food supply chains in uncertain environments, part I: background and methodology, *Biosystems Engineering* 99 (2008), pp. 348–359.

Dess et al., 1994 Dess, G.G., Walter B.A., Peters, S., 1994. Strategic alliances and joint ventures: Making them work. *Business Horizon*, July–August, pp. 5–10.

Doz and Hamel, 1998 Y. Doz and G. Hamel, *Alliance Advantage: The Art of Creating Value Through Partnering*, Harvard Business School Press, Boston (1998).

General Administration of Quality Supervision Inspection and Quarantine of the People's Republic of China. Text book of Quality Technology Supervision Law. Beijing: China Textile & Apparel Press. 2008: 175

Gunasekaran and Ngai, 2003 A. Gunasekaran and E.W.T. Ngai, The successful management of a small logistics company, *International Journal of Physical Distribution & Logistics Management* 33 (9) (2003), pp. 825–842.

Gunasekaran and Ngai, 2004 A. Gunasekaran and E.W.T. Ngai, Information systems in supply chain integration and management, *European Journal of Operational Research* 159 (2) (2004), pp. 269–295.

Grubbström and Bogataj, 1998 Grubbström, R.W., Bogataj, L. (Eds.), 1998. *Input–Output Analysis and Laplace Transforms in Material Requirements Planning*.

Storlien, 1997. FPP Portorož, 1998.

Hafeez et al., 2007 Hafeez, K., Malak, N., Zhang, Y.B., 2007. Outsourcing non-core assets and competences of a firm using analytic hierarchy process. *Computers & Operations Research*, accepted paper. Available through [www.sciencedirect.com](http://www.sciencedirect.com).

Hertz and Alfredsson, 2003 S. Hertz and M. Alfredsson, Strategic development of third party logistics providers, *Industrial Marketing Management* 32 (2) (2003), pp. 139–149.

Information of Restructuring and Revitalization Plan of Logistics Industry Issued by the State Council (2009. No. 8)

Iyer et al., 2004 K.N.S. Iyer, R. Germain and G.L. Frankwick, Supply chain B2B e-commerce and time-based delivery performance, *International Journal of Physical Distribution & Logistics Management* 34 (8) (2004), pp. 645–661.

Jones Lang LaSalle's Report. Unlimited potential for cold chain logistics market in China. 2009.9.

Kim et al., 1997 G. Kim, C.S. Park and K.P. Yoon, Identifying investment opportunities for advanced manufacturing systems with comparative-integrated performance measurement, *International Journal of Production Economics* 50 (1) (1997), pp. 23–33.

Lai et al., 2006 F. Lai, X. Zhao and Q. Wang, Taxonomy of information technology strategy and its impact on the performance of third-party logistics (3PL) in China, *International Journal of Production Research* (2006), pp. 1–24.

Lieb et al., 1993 R.C. Lieb, R.A. Millen and L.V. Wassenhove, Third-party logistics

services: A comparison of experienced American and European manufacturers, *International Journal of Physical Distribution & Logistics Management* 6 (23) (1993), pp. 35–44.

Liu Wei. *Modern Logistics*. Beijing: China Yan Shi Press. 2004 (53)

Liu et al., 2000 J. Liu, F.Y. Ding and V. Lall, Using data envelopment analysis to compare suppliers for supplier selection and performance improvement, *Supply Chain Management: An International Journal* 5 (3) (2000), pp. 143–150.

Luo Wenping. Third party logistics. *Containerization*. 1999.1: 9-10

Ludwig Erhrd. *Prosperity through Competition*. Thames and Hudson London, 1958

Pan Jianwei. Thoughts about Developing Agricultural Logistics in China [J]. *Inner Mongolia Social Sciences*. 2008(4).

Peter F. Drucker, *The Practice of Management* (New York : Harper & Row, Inc.,1954

Peter F.Drucker. New templates for today's organizations[J].*Harvard Business Review* ,1974,1-2

Ronald H.Ballou.*Business Logistics Management:Planning Organizing and Controlling the Supply Chain*.Pearson Education,Inc., 2004:2

Yi Munong. *Modern Logistics (English Version)*. Beijing: China WaterPower Press, 2006 (171)