Problems and Challenges of Global Sourcing

A Study of Chinese Manufacturing Enterprises

Master thesis within BUSINESS ADMINISTRATION

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Acknowledgment

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Hopefully, readers would find this thesis somewhat useful. And we also appreciate suggestions and comments that will contribute to the improvement of our thesis.
Abstract

Master thesis within Business Administration

Title: Problems and Challenges of Global Sourcing

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Date: 2009-08-30

Subject: International purchasing, global sourcing, supplier selection, Chinese manufacturing enterprises

Background:

Scholars tend to view global sourcing as a one-way street, whereby multinational manufacturers from developed countries purchase low-cost materials and products from developing countries. Undoubtedly, one of the purchasing bases for them is China because of its abundant resources and cheap labor. That is why China is aptly called the “Global Factory.” Conversely, few Chinese manufacturers currently adopt a global sourcing strategy. However, the higher demand for technical quality and an increase in manufacturing cost is driving more Chinese manufacturers to adopt a global sourcing strategy in order to improve their competitive advantage. This would help them to optimize the use of global resources.

Purpose:

The purpose of this master thesis is to analyze what problems and challenges Chinese manufacturing companies face in the implementation of a global sourcing strategy.

Research Method:

Our study shall analyze the situation and problems encountered when Chinese manufacturers implement a global sourcing strategy. To achieve this deep understanding we need to perform a qualitative investigation of some Chinese manufacturers. Hence, we chose qualitative research as our methodology of this thesis.

Conclusion:
Pursuing global sourcing is a process which takes a long time and involves many obstacles to be overcome. In this complicated situation, there is not a universal compass to pursue global sourcing. Inexperienced Chinese manufacturers have to deal with each problem in order to develop an advanced level of global sourcing and to face the challenges from logistics capabilities, selecting foreign sources, protectionism, regulations, and so on.
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1 Introduction

This introductory chapter will give readers a whole view of this master thesis: background, problems, research purpose and disposition.

1.1 Background

Due to the costs of transport, local labor contract requirements, and available low-cost sources, organizations today are surveying the world to develop strategies for manufacturing and supply chain sourcing outside their home country (Harris, 2006). As reported extensively in academic literature, companies have been forced by increasing global competition to devise and pursue international purchasing strategies that hinge on reducing prices and optimizing quality, fulfillment, production cycle times, responsiveness and financial conditions (Gianluca, 2007). The undertaken literature survey reveals the significance of an international purchasing strategy as a key competitive factor for companies seeking globalization. Such a strategy is a purchasing management approach focusing on supplies from vendors in the world market, rather than limiting options exclusively to domestic sources (Petersen, et al., 2000; Trent and Monczka 1998, Steven, 1995; and Fagan, 1991). Global sourcing, which differs from international purchasing in scope and complexity, is seen as a corporate strategy aimed at the worldwide utilization of materials and resources (Arnold, 1989). Depending on the level of global activities, companies need to develop a sourcing strategy based on the integration and coordination of suppliers across worldwide purchasing, engineering, and operating locations with regard to materials, processes, designs, and technologies. (Monczka and Trent, 1991; Arnold, 1989).

The ongoing process of greater economic interdependence among countries known as economic globalization is reflected in the increasing amount of cross-border trade in goods and services (Fischer, 2003). For manufacturers, it has been vital to establish an efficient supply chain and make use of international resources to cut costs, improve quality, and spur innovation. Along with the boom of globalization, global sourcing strategies are a key differentiator for the most successful demand-driven global value chain organizations (Rizza, 2007).

When it comes to global sourcing, scholars always point to the fact that the multinational manufactures from developed countries purchase the low-cost materials and products from developing countries. Undoubtedly, one of the purchasing bases for them is China because of its abundant resources and cheap labor (Xu & Deng, 2008). According to data from Chinese customs bureau, as of 2004, China has surpassed the United State as the world's largest exporter of electronic products—a dramatic increase from its 10th place position in 2000. Moreover, so many famous international enterprises have set up their global sourcing centers in China. For example, in 2007, IBM established a global sourcing center.
in Shenzhen and China has also become the largest source of materials for IKEA. About 18 percent of IKEA's materials are from China (Ulf, 2007).

However, on the other hand, few Chinese manufactures adopt a global sourcing strategy. This is largely because there are so many low-cost sources available domestically, providing little economic motivation for companies to seek international suppliers. Haier Group is a rare exception. Haier is one of the few Chinese manufacturers to implement a global sourcing strategy. As early as 2002, Haier Group was being supplied by 44 Fortune 500 companies worldwide (Qi, 2007). Although China has a wealth of cheap labor and resources, it lags behind the world in quality control and industrial standards, which have become increasingly important in the modern market. It is this ever-increasing demand for technical quality and an increase in manufacturing cost that is motivating more and more Chinese manufacturers to adopt a global sourcing strategy in order to improve their competitive advantage.

1.2 Problems

Although global sourcing is currently no longer a new strategy, there are still some serious practical problems that have yet to be addressed, especially for inexperienced Chinese companies (Trent & Monczka, 2003). Chinese companies have grown accustomed to purchasing supplies domestically, so they are unfamiliar with many of the processes involved in global sourcing, such as global supply chain management and formulating criteria for supplier selection. Also, because global sourcing is a relatively new phenomenon for Chinese companies, there is a serious lack of personnel knowledgeable about the subject.

According to the experiences of some multinational enterprises, they have to face problems like transportation, technological and capacity weaknesses in production, and lack of management systems. Other issues are languages barriers, customs, and trade regulations (Kendall, 1999). For example, the control and assessment of suppliers' business processes are more difficult because of their different locations in the world. In addition, cultural issues in global sourcing are manageable, but still they should be recognized as concerns that must be addressed (Cook, 2006). Besides, logistics in global sourcing refers to plenty of additional problems such as transportation delays, border-crossing procedures and longer inventory management (e.g., Boyce, 1999; Bradley, Thomas, Gooley, & Cooke, 1998).

Consequently, it is necessary and valuable to study what kinds of problems and challenges Chinese manufacturers are experiencing.

1.3 Research purpose

The purpose of this master thesis is to analyze the implementation of global sourcing in Chinese manufacturing companies at various stages in order to identify and address the problems caused therein. Also, the goal is to compare and contrast the experience of
Chinese companies with that of Western ones, to identify what problems are unique to the Chinese experience, and develop solutions accordingly.

### 1.4 Disposition

To fulfill the purposes of this master thesis, 6 chapters (see Figure 1-1) have been laid out. Chapters 1 and 6 are the introduction and conclusion, respectively, which set up the framework of this master thesis. The research problems and summary of this thesis are presented separately.

![Disposition of the master thesis](image)

Chapter 2 will offer the reader a theoretical background of global sourcing: a definition, the driving forces, and benefits are provided. In addition, the current status of Chinese manufacturing will also be introduced in this chapter. Based on this information, Chapter 2 will give an idea of what kind of problems and challenges of global sourcing have been found in previous studies. This chapter ends with a list of the most important problems and challenges about global sourcing theory. The following two chapters introduce the research method used in this thesis and describe the details of the questionnaire used and also the credibility of the empirical study. In Chapter 5, an analysis based on previous theoretical study and collected data will be stated. Results of the empirical study will show how Chinese manufacturers implement global sourcing in practice and the problems and challenges of global sourcing among Chinese manufacturers are analyzed by the theoretical
and practical findings of this study. Chapter 6 ends with a conclusion and a recommendation for further study.
2 Theoretical Framework

In this chapter the authors will present a theoretical background of global sourcing, levels of global sourcing, problems and challenges of global sourcing, benefits and risks of global sourcing, and a summary of literature review.

2.1 Global sourcing

2.1.1 Definition

Global sourcing is defined as a centralized procurement strategy for a multinational company, wherein a central buying organization seeks economies of scale through corporate-wide standardization and benchmarking. A definition focused on this aspect of global sourcing is: "proactively integrating and coordinating common items and materials, processes, designs, technologies, and suppliers across worldwide purchasing, engineering, and operating locations” (e.g., Monczka, Trent, & Handfield, 2005; Monczka, Trent, & Petersen, 2008). With growing scholarly and executive attention over the past couple of decades, sourcing and supply chain management have been shown to play a significant role in achieving competitiveness (e.g., Ellram & Carr, 1994; Gadde & Håkansson, 1994).

The progression from domestic purchasing to international purchasing and then finally to global sourcing can be visualized as movement through five different levels (domestic purchasing only; international purchasing only as needed; international purchasing as part of a sourcing strategy; global sourcing strategies integrated across worldwide locations; global sourcing strategies integrated across worldwide locations and functional groups (Trent & Monczka, 2003)). In moving from domestic purchasing to international purchasing, organizations must contend with longer distances, increased rules and regulations, currency fluctuations, customs and language requirements, cultural and time differences. Companies that then go on to pursue global sourcing must contend with the operational issues that affect international purchasing, while also managing a higher level of cross-functional and cross-location coordination (e.g., Trent & Monczka, 1994; Trent & Monczka, 2005).
2.1.2 Differences between domestic purchasing and international purchasing

‘Purchasing’ refers to a process by which an enterprise or organization attempts to acquire materials or products in order to attain their goals. In the process of purchasing the ownership and possession of goods will be transferred from the seller to the buyer. The activities of purchasing include enquiry, an order, tracking the order, supervising and accounting for an order, receiving goods, and making payment. International purchasing relates to a commercial purchase transaction between a buyer and a supplier located in a different country. This type of purchase is typically more complex than a domestic purchase. Organizations must contend with longer material pipelines, increased rules and regulations, currency fluctuations, customs requirements, and a host of other variables such as language and time differences (e.g., Trent & Monczka, 2003; Monczka, Trent, & Petersen, 2008).

International purchasing refers to the utilization of global resources; searching for a bargain with the highest quality from all over the world. From the aspect of supply-chain management, international purchasing requires companies to set up a global manufacturing chain in order to make a rational purchasing plan and acquire the high-quality goods with a rational price. Besides, it is an effective way to measure and supervise the efficiency of purchasing processes so that it minimizes the total cost of purchasing.

With economic globalization, the competition among companies is becoming more and more fierce, which requires all the business to enhance the level of T, Q, C, S (Time of
research and development; Quality of products; Cost control; satisfaction with Service), so that they can operate their business successfully in the market.

In contrast to domestic purchasing, the international purchasing mode has the following characteristics (Fan, 2007):

- **Increased purchasing scope:** Because the scope of purchasing activities extends to the global arena and they no longer just focus on the resources available in one country, they can acquire their resources from all over the world. Therefore, it is more possible for the companies to obtain their ideal resources and products with a rational cost because of the greater abundance of potential vendors.

- **Increased purchasing risk:** Because international purchasing always involves a series purchases, companies usually buy the materials or goods on a larger scale, which requires greater monetary transactions. Larger scale transactions are exposed to greater risks due to currency fluctuations. Moreover, the cross-border transaction results in complicated procedures and processes, which exposes the company to lots of additional existing potential risks.

- **Decreased purchasing price:** Because all possible resources from the whole world can be considered, the business can “shop around” to obtain the high-quality goods with a rational price through the mode of comparative cost.

- **The need for a systematic criterion in supplier selection:** Because the suppliers under the international purchasing come from different parts of the world, they hold various models, standards, and cultures. Hence, it is very significant for businesses to develop systematic and standardized criteria and conditions in order to select a dependable supplier.

- **Stable purchasing channels:** A business using global purchasing cooperates with suppliers worldwide because of the concept of supply-chain management. Therefore, the buyer and seller are developing a relationship of strategic cooperation. Hence, this business with an international purchasing strategy forms a relatively stable purchasing channel.

2.1.3 Differences between international purchasing and global sourcing

Global sourcing, which differs from international buying in scope and complexity, involves proactively integrating and coordinating common items and materials, processes, designs, technologies and suppliers across worldwide purchasing, engineering, and operating locations (Trent & Monczka, 2003). Global sourcing is not only a starting point of logistical activities, but is also a set of managerial activities. The object of said activities is to accomplish the goals of manufacture or sale, which includes the choice of suppliers, confirming the quality and quantity, negotiating the price, and so on. The process of global
sourcing is a long-term strategy, which includes the evaluation and selection of foreign potential suppliers, while international purchasing involves daily activities supporting manufacturing and services departments. In order to advance from the international purchasing stage to global sourcing, the purchasing department must be elevated to a position where it can make more strategic decisions for the business.

There is a table indicating the difference in worldwide sourcing benefits between global sourcing and international purchasing (Trent & Monczka, 2003).

<table>
<thead>
<tr>
<th><strong>Sourcing Benefits</strong></th>
<th><strong>Global Sourcing</strong></th>
<th><strong>International Purchasing</strong></th>
<th><strong>Difference</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Better management of total supply chain inventory</td>
<td>4.29</td>
<td>2.74</td>
<td>1.55</td>
</tr>
<tr>
<td>Greater supplier responsiveness to buying unit needs</td>
<td>4.47</td>
<td>3.08</td>
<td>1.39</td>
</tr>
<tr>
<td>Greater standardization or consistency to the sourcing process</td>
<td>4.25</td>
<td>3.01</td>
<td>1.24</td>
</tr>
<tr>
<td>Greater access to product technology</td>
<td>4.69</td>
<td>3.49</td>
<td>1.20</td>
</tr>
<tr>
<td>Improved supplier relationships</td>
<td>4.61</td>
<td>3.46</td>
<td>1.15</td>
</tr>
<tr>
<td>Greater access to process technology</td>
<td>4.54</td>
<td>3.46</td>
<td>1.08</td>
</tr>
<tr>
<td>Greater early supplier involvement during new product/service/development</td>
<td>3.86</td>
<td>2.80</td>
<td>1.06</td>
</tr>
<tr>
<td>Improved sharing of information with suppliers</td>
<td>4.10</td>
<td>3.04</td>
<td>1.06</td>
</tr>
<tr>
<td>Lower purchase price/cost</td>
<td>5.98</td>
<td>5.04</td>
<td>0.94</td>
</tr>
<tr>
<td>Higher user satisfaction with the purchasing process</td>
<td>4.10</td>
<td>3.36</td>
<td>0.74</td>
</tr>
<tr>
<td>Average across all benefits</td>
<td>4.49</td>
<td>3.35</td>
<td>1.14</td>
</tr>
</tbody>
</table>
Table 2-1 The Different Sourcing Benefits between global sourcing and international purchasing

Scale:  

1 = Not a realized benefit  
4 = Moderately realized benefit  
7 = Extensively realized benefit


2.2 Global sourcing process model

An internationalization of the worldwide sourcing process takes place as firms progress from domestic purchasing only to global coordination and integration across worldwide locations and functional groups (Trent & Monczka, 1991). The contributions from the Center for Advanced Purchasing & Supply (CAPS) at Arizona State University have been particularly influential (e.g., Trent & Monczka, 2002; Trent & Monczka, 2003; Trent, 2004; Trent & Monczka, 2005). This work initially resulted in a four-stage global sourcing process model: 1) domestic purchasing only, 2) foreign buying based on need, 3) foreign buying as part of procurement strategy, 4) integration of global procurement strategy (Trent & Monczka, 1991).

The four-stage model was further revised, resulting in a new five-stage model. Figure 2-2 (Trent & Monczka, 2003) shows five levels of development of global sourcing and the developing trend of global sourcing strategy by the percentage of firms experiencing different levels of global sourcing.
2.3 Driving forces of global sourcing

According to Porter's generic strategies, the competitive strategies can be divided into low-cost strategy and product-differentiation strategy. Both of these are highly related to global sourcing strategy. There is no doubt that the search for lower costs has been the greatest driver of global sourcing. Other factors include a search for higher quality, greater material availability, and access to product and process technology (e.g., Monczka, Trent, & Petersen, 2008; Kotabe, 1998). These factors can be classified as follows: "Pull" driving force and the other one is "Push" driving force (Qi, 2007). In essence, “Pull” factors of global sourcing are negative and passive, which means that one business is obliged to...
pursue global sourcing because of the pressures from international competition and high-demand of customers. However, "Push" factors of global sourcing are positive and voluntary, which means global sourcing is a main part of business strategy and it can help the business to be continuously competitive (Kotabe, 1998). The "Push" factors of global sourcing evolve from the "Pull" factors of global sourcing.

In order to win the preference of consumers, each enterprise is striving to provide cheaper and more distinct products for the potential consumers (Kotabe, 1998). From this point of view, the demand of consumers is a main reason driving the companies to implement the global sourcing.

Global sourcing strategy is decided upon by the head administrator of companies, and global sourcing strategy is the main significant direction of competitive strategy for companies. Therefore, global sourcing should be completely coordinated with other business strategies. To be more accurate, the purchasing activity just focuses on functional optimization, but not the whole strategic optimization (Swamidass, 1993). In other words, the functional optimization does not always result in the success of the whole business operation. Hence, the global sourcing strategy can help businesses to be more competitive only insofar as the strategy can be adopted within the framework of the whole competitive strategies of businesses.

The "Pull" factors have deeply affected the development of global sourcing in the past 30 years, and this effect will continue in future global sourcing activities. Multinational companies will suffer the endless pressures from the global competition so that they have to make use of global sourcing to counteract these pressures (Qi, 2007). However, the global sourcing based on the "Pull" factors usually result in the passive and negative purchasing strategy, namely concentrating on searching for the cheapest supply resources.

Under the global strategy caused by "Pull" factors, most managers consider the global strategy as an approach which can achieve the low-cost advantages in a short time, instead of a sustainable competitive advantage in the long run. For companies to maintain a sustainable competitive advantage, a long-range perspective is required (Monczka & Giunipero, 1984). The buyers usually emphasize the current purchasing cost and product quality, instead of the long-term total cost and improving quality-control measures. This passive and negative mode of procurement is always decided by the low functional departments and these decisions are isolated from other departments in one business. This means these decisions about procurement are just at the level of function and tactic, instead of being part and parcel of a whole coordinated strategy.

Under the global sourcing strategy based on the "Pull" factors, the relationship between buyers and sellers is just a normal trading relationship (Qi, 2007). With the objective of ensuring marketing efficiency, the buyers usually purchase the same kind of materials or products from several suppliers. When they fail to purchase the materials or products from one supplier, they can obtain them from another supplier as a substitute. When one supplier leaves the buyer unsatisfied, they can change to another.
This relationship is quite different from the long-term cooperative relationship which focuses on the both development of buyers and sellers. Hence, the strategy based on this kind of relationship cannot get the total advantages of global sourcing. With the improvement of global purchasing activities, companies obtain more purchasing experiences than before. Because of this, the motivation of global sourcing is no longer just for business survival, but for ensuring the competitive advantage in the aspects of cost, quality, technology, and others.

Nowadays, global sourcing has been considered by more and more enterprises as positive strategic activities under the pressures from global competition. Because it is an integration and co-ordination of procurement requirements across the worldwide business units, looking at common items, processes, technologies, and suppliers (Stevens, 1995). According to the study of John Stevens, several main driving reasons for global sourcing are concluded as follows:

- **Materials are not available domestically**
  Due to reasons of geography and technology, some domestic manufacturers may be unavailable to supply specific materials. Moreover, probably they are incapable of meeting the required delivery time or supplying some materials due to their limited technical capabilities.

- **Unsatisfactory quality of domestic products**
  The quality of products obtained from the domestic market may not meet the requirements of buyers. The quality of domestic goods may not be sufficient for the manufacturers to sell their products to international markets where higher standards may apply. In addition to the quality of the goods themselves, maybe the supplier cannot provide satisfactory warranties or after-sales services to the manufacturers.

- **Price**
  Especially in developed countries, the materials or products supplied by domestic suppliers may be too expensive, and they can obtain the same goods with a cheaper price elsewhere around the world.

- **Technology**
  Especially in developing countries, some enterprises may have no choice but to source internationally; otherwise they cannot get access to world-class levels of technology.

### 2.4 Benefits of global sourcing

Global sourcing can be defined as the worldwide integration of procurement, engineering, operations, logistics, and even marketing within the upstream portion of a firm's supply
chain (Trent & Monczka, 2003). It is different from the concept of international purchasing. The enterprises which successfully implement global sourcing strategy achieve material cost-savings, and some other improvements in areas such as quality, supplier technology contribution, and supplier responsiveness.

2.4.1 Basic benefits of global sourcing

According to previous research, it has shown that the initial motive of global sourcing is cost savings. With the progress of globalization, product differentiation in contemporary markets is not that remarkable anymore, to some extent, which leads to a greater emphasis being placed on price competition. This has especially been the case with consumer products.

Besides cost savings, plenty of studies have also identified quality and availability as critical aspects for global sourcing (Cho & Kang, 2001).

The market today is highly affected and dominated by the enterprises acting globally, which results in much fiercer competition than before. Additionally the pressure from consumer demand is higher today (Trent & Monczka, 2003). For many reasons there is a greater possibility to source from suppliers all over the world, allowing companies to tap into technical capabilities unavailable domestically, improving quality and availability of products.

Also, enterprises that source globally are in an improved competitive position. They learn how to do business in a potential market, and improve their company image, as well.

According to the conclusion from John Brockwell, many enterprises are still making procurement decisions primarily based on unit cost. However, many enterprises procure goods from global sourcing for other reasons, including (Brockwell, 2009):

- Access to fresh research, design or specialized intellectual capital.
- Availability of new technology and capacity. Many companies source overseas because domestic suppliers lack the capacity and are not making the necessary investments to stay competitive.
- Plans to sell or service locally. Some companies source locally to help break the barrier to local market entry. Or their customers have now moved manufacturing processes to that country and want to be serviced locally.
- Proximity to raw materials.
- Superior quality. Many companies praise the quality of international sourced products compared to domestic products. This is typically due to supplier investment in technology and capacity to attract global business as mentioned above.
2.4.2 Ranking of benefits from global sourcing

Benefits obtained from global sourcing can be ranked as seen in the following table. The score in this table shows us what type of benefit is more significant for the companies worldwide, and which ones are less important, as well (Salleh & Mohammad, 2006).

Table 2-2: Ranked benefits of global sourcing

<table>
<thead>
<tr>
<th>Perceived Benefits</th>
<th>Overall Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to higher quality goods</td>
<td>5.8846</td>
</tr>
<tr>
<td>Access to lower-priced goods</td>
<td>5.8462</td>
</tr>
<tr>
<td>Access to worldwide technology</td>
<td>5.7307</td>
</tr>
<tr>
<td>Enhanced competitive position</td>
<td>5.5000</td>
</tr>
<tr>
<td>Increased number of suppliers</td>
<td>5.0769</td>
</tr>
<tr>
<td>Better customer service</td>
<td>4.7692</td>
</tr>
<tr>
<td>Helps meet counter-trade obligations</td>
<td>4.7308</td>
</tr>
<tr>
<td>Better delivery service</td>
<td>4.5769</td>
</tr>
<tr>
<td>Overall Mean Score of Perceived Benefits</td>
<td>5.2644</td>
</tr>
</tbody>
</table>


From this table we can make a conclusion that access to higher quality goods is considered to confer the highest benefits followed by access to lower-priced goods and access to worldwide technology. However, ‘helps meet counter-trade obligations’ and ‘better delivery service’ do not factor in highly as benefits of global sourcing.

Hence, the major benefits from global sourcing are higher-quality goods, lower-priced goods, and worldwide technology.

2.4.3 Different benefits of global sourcing in different companies

From last sections we have introduced and ranked sorts of benefits the companies can achieve from global sourcing. However, to be more concrete, different companies obtain different types of benefits in varying degrees according to the managerial and demographic characteristics of the enterprises.

According to the study from Jinsook Cho and Jikyeong Kang, the types and degree of benefits received from global sourcing are different in terms of (Cho & Kang, 2001):

- The size of the company
- The type of products
- The import volume
- The percentage of imports
The company’s experience in global sourcing

The territory where goods are purchased

The investigation shows that companies with large import volumes can achieve more benefits in obtaining lower-priced goods and product availability. Besides, the companies importing from fixed territory can obtain benefits of cost reduction more significantly than a company importing from some other territories. In addition, the companies with more experience in global sourcing can easily reach foreign suppliers which can offer higher quality and lower prices (Trent & Monczka, 1991).

2.5 Risks from global sourcing

Factors that can affect the implementation of global sourcing are political, legal, and cultural differences between various countries. Moreover, enterprises have to face problems like transportation, technological and capacity weaknesses in production, and lack of management systems. Other features are languages barriers, customs, and trade regulations (Kendall, 1999).

From another perspective, some risks of global sourcing are naturally also shared with the risks of outsourcing. During the process of outsourcing, regardless of whether it is domestic, there is a risk of confidential information leaking; hence, the competitive advantage of companies is weakened.

Besides, international logistics can also be a problem for global sourcing. The transportation and logistics networks are perhaps not as reliable as in the home country, which may cause unexpected delays (Cho & Kang, 2001).

Regarding the most important aspect of global sourcing, cost savings, it has been shown that some of the cost reductions turn out to be not as great as expected (Trent & Monczka, 2003).

Finally we can conclude that global sourcing involves the following risks:

- **Security Risks:** Many developing countries identified for low cost global sourcing are subject to political uncertainty or even internal political turmoil. That risk needs to be assessed in terms of whether your offshore supplier will be able to provide the products successfully.

- **Cost Risk:** Because of the different cultures and different time zones, there can be other hidden costs when a company adopts global sourcing. In addition, monitoring global manufacturers also means greater costs.

- **Quality Risks:** Global sourcing can lead to quality problems that, if not managed well, can damage the company’s brand and result in a huge financial penalty.
• **Intellectual Property Risk:** The proprietary knowledge regarding design, engineering, materials and other elements can be exposed to the light of day easily. So the enterprises have to take the risk of losing intellectual property.

### 2.6 Global sourcing and supply chain management

The global sourcing from the mode of supply chain management has a distinct character: the value of each product is corporately created by the whole supply chain and the competitive capability of each product is decided by the competitive capability of every process of this supply chain (Fan, 2007). Compared with reducing average cost by expanding the manufacture scale, supply chain management is a new thought and developmental direction. It enables the business to enhance profits and competitive capability by re-designing the business processes, and establishing win-win strategic relationships with collaborators both upstream and downstream. Hence, this concept and mode are supporting the development of global sourcing.

Supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management activities (Fan, 2007). Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies in order to manufacture and sale with the best optimal cost.

Global economic integration facilitates the rational allocation of worldwide resources, and is also the direct driving force for global sourcing and supply chain integration. Because of the accelerated development of global economic integration, the economic strategy of each country is shifting from reliance on domestic knowledge, human resources, basic infrastructure, domestic commodity markets and consumer preferences to reliance on the approach of comparative resources advantage, which enables the allocation of resources beyond the country's geographical borders (Fan, 2007). Through the re-allocation of global resources, the companies can achieve the best optimal and rational efficiency of re-allocation.

The development of information technology definitely facilitates supply chain integration and global sourcing (Fan, 2007). Through the utilization of information technology, the various decentralized business locations can be connected and become an organic whole. Meanwhile, the updated information can be shared among the manufacturer, distributor and customers, which enables them to provide their products or services based on the demand of markets and coordinate their various business processes effectively. Consequently, information technology has become the core of supply chain integration and global sourcing.

With the extension of business marketing borders and organizational boundaries, there are many revolutionary changes happening in the business management and operational system. Most especially, the establishment and development of supply chain management provides
an effective and efficient approach and tools for global sourcing and supply chain integration.

2.7 The model for analyzing the problems and challenges of global sourcing

2.7.1 Global sourcing: Is it right for you?

According to the study of Frank Curtin on global sourcing, global sourcing means engaging in the international division of labor in its most basic sense (Curtin, 1987). However, no one can deny this course can be appropriate for any business and industry, depending on the kind of companies and what type of competitive environment they are experiencing. The effectiveness of global sourcing is subject to many visible and implied factors such as different cultures between various countries, expensive tariffs and duties, and even nationalistic attitudes.

Although from a long-term strategic perspective, global sourcing can result in a dramatically more competitive position and visible financial alternatives, there are many important factors we have to consider and assess before the companies can implement the global sourcing strategy. After all, a piecemeal approach without a corporate business plan would be confusing and eventually results in failure. Hence, some basic rules need to be comprehensively considered before applying global sourcing.

As we know, cost savings from global sourcing is one of the most important benefits for companies because they can obtain the goods at a lower unit price so that they even consider global sourcing as a logical extension of their domestic make-or-buy tactical decision. In most cases, external sourcing of products can reduce costs by 50 percent of the given cost (Curtin, 1987). This fact is driving lots of companies in North America and Europe to enter into a purchasing contract with a company 8,000 miles away in the Far East, rather than their domestic supplier 100 miles away. On the surface, the basic purchasing strategy bears a rough similarity to domestic purchasing, but other factors like administration and communication will change enormously, resulting in higher implied costs. Consequently, besides the assessment of unit cost, the implied cost from international administration and communication should be considered and calculated carefully as well.

Transport costs and duty rate also cannot be ignored for companies implementing global sourcing. As everyone knows, one identical component in a different condition can cost differently both in transport fee and duty rate. For instance, does a machined or un-machined component cost more? We should analyze this carefully before we implement a global sourcing strategy.

As we mentioned before, communication lines are much longer when companies utilize offshore sourcing strategy. Thanks to developments in computer technology, more rapid
and frequent engineering design changes are made possible. Therefore, sourcing an immature product or part to implement engineering changes will increase cost and threaten the supply chain and critical components (Curtin, 1987). Although the motivation to improve the product is admirable, such attempts can result in disastrous consequences in the case of global sourcing.

It is almost impossible for the companies implementing global sourcing to avoid the issues of different regulations and cultures between various countries. Therefore the companies should contract with a professional agency or institute a special international purchasing office to handle these problems (Curtin, 1987). The staff working for this department need to be on the company’s direct payroll and the companies should ensure substantial contact and travel to the suppliers during the technology-transfer period. Active and timely communication in global sourcing is very crucial; otherwise the businesses dealing with the technical problems will be surprised when the products from abroad cannot match the specifications.

Consequently, in order to avoid unexpectedly losing global sourcing processes, the companies possessing potential capabilities must foresee and assess plenty of implied factors and risks, regardless of whether it’s direct or indirect, before they adopt a global sourcing strategy.

2.7.2 Complicated logistics in global sourcing

In global sourcing, international management of logistics is definitely a necessary and crucial procedure. Logistics in global sourcing refers to plenty of additional problems such as transportation delays, border-crossing procedures and longer inventory management (e.g., Boyce, 1999; Bradley, Thomas, Gooley, & Cooke, 1998).

Moreover, lack of holistic logistics knowledge in low-cost developing countries would trouble the procurement executives when implementing global sourcing. Nowadays, logistics management has dramatically improved in the developed countries. On the other hand, less-developed country suppliers are short of experience with the most advanced approaches and are usually unfamiliar with high-standard requirements, such as sequence deliveries combined with Just-In-Time; electronic data interchange communications and vendor-managed inventory solutions (Cho & Kang, 2001). These capabilities of supply chain management are important in determining how much benefits a company can derive from global sourcing.

In addition, low-grade infrastructure of logistics in developing countries influences the efficiency of global sourcing. We can take an example, if a company plans to purchase products from China, they have to consider the logistics capability in China. To be more specific, they must face the problem of inland transport. The roads in China are not yet as developed by European or American standards. This is because transportation infrastructure did not develop at the same pace as international trading. Besides, some unqualified vehicles and drivers also cause problems of logistics. Although these troubles
are being mitigated, they do have an effect on supply chain performance of enterprises sourcing from every point in China.

### 2.7.3 Cultural and lingual difference in global sourcing

Cultural issues in global sourcing are manageable, but it still should be recognized as a concern that must be dealt with (Cook, 2006). Perfect global sourcing management requires that mutual respect must be shown to the people, language, and culture of the countries where a company operates. It is meaningful to take the time to learn basic information about the special culture and possibly learn some basic language skills, at least how to say “Hello,” “Thank you” and so on. The capability to successfully cooperate on a personal level with foreign businesses will go a long way in developing a win-win working relationship, which is helpful to maximize the possibility for reaching successful global sourcing processes.

However, language barriers always threaten cultural communication and even technology transfer in global sourcing. Although many suppliers from developing countries have technical staff and sales people with English skill, difficulties still arise when they need to interact with Western experts to discuss professional technical issues. Main personnel of suppliers in developing countries do not always have sufficient command of English or of other Western languages to engage in lengthy, detailed exchanges. Using translators is one option, but they often do not have the technical background to address industry specifics. The risk of misunderstanding and communication impasse cannot be underestimated in global sourcing (Accenture, 2007).

### 2.7.4 Volatile economic and political environment in global sourcing

Local and regional economic environment can be a primary risk factor for global sourcing. Due to the cheap-labor and other factors, developing countries may be experiencing uncertain economic situation (Cook, 2006).

A pronounced financial crisis happened in 1999 leading to a decline in almost every Asian economy and currency decreased sharply over one weekend. Plenty of banks and companies went bankrupt in Asian countries. Even as late as 2006, although many Asian countries have seen their economies revived, some still have not totally recovered. Many European and American companies were financially stricken by this horrible occurrence.

Many U.S. companies are not willing to invest in an overseas factory in Latin American and Africa because of the uncertainty of local economical environment (Cook, 2006). Therefore many strong enterprises engage experts to inspect local economies where they plan to source. The economic risks are more severe for the medium and small companies; they must find reliable way to cover this risk.

There are also some problems caused by political factors in global sourcing. For instance, events in the Middle East and North African show that local politics can dominate how companies set up commercial relationship with the companies in these countries (Cook,
According the study of Thomas A. Cook, there are more than 50 countries around the world where the political environment is not conducive to deals with local businesses.

2.7.5 Fluctuation of currency exchange rate in global sourcing

In global sourcing, the money has to be moved between domestic countries and foreign partners. Stability of currency enables the international trade to be easier while instability makes it more complex and introduces risk. If trade amounts to tens of millions of dollars, a 0.5% deviation of exchange rate could affect the effectiveness of global sourcing strategy and profitability of the whole supply chain. Moreover, 4% deviation could result in a disastrous end (Cook, 2006).

For large multinational companies, they usually have specific personnel in the financial departments who are in charge of collecting and managing the information on currency valuations. But for the small companies planning to carry out global sourcing, normally they do not have the specific financial experts, but they still must set up an internal management system or outsource the work in order to predict and hedge against currency fluctuations.

But from another side, if the companies can make wise use of the risk from currency fluctuation, sometimes experienced companies can put themselves in a beneficial position by managing currency correctly. Hence, the opposition of risk from currency fluctuation is also present when discussing currency problems.

2.7.6 Different standards and regulations in global sourcing

Due to the various phases of industrialization in different countries, industrial standards vary among different countries in the world. Therefore, evaluating the situations and clarifying the differences are highly important and necessary before the companies share designs with their suppliers who may use different technical standards. Once again, misunderstanding may filter into the scenario (Accenture, 2007). But actually, it takes an inordinate amount of time for the suppliers to understand complicated explanations of required industrial standards, which may be self-explanatory in the buyer's country. Although many international business organizations are striving to unitize different standards in order to facilitate international cooperation, existing industrial standards which are not synchronized with international standards or expectations still can cause costly troubles and even the failure of global sourcing.

In addition to the different standards, the special regulations promulgated by governments also influence global sourcing directly and indirectly and often make it complicated. The main regulations impacting global sourcing are tariffs and quotas (Sowinski, 1999). Non-tariff restrictions including complicated documentation requirements for border-crossing processes, and many kinds of international trade bills are also difficult challenges which the buyers from abroad have to face (Cho & Kang, 2001).

Governments make use of tariffs and quotas for two purposes: first, to earn revenue; second, to make foreign goods more costly in order to protect national products. The
latter is becoming more important nowadays (Jeannet & Hennessey, 1995). Several restrictions indicated by international trade bills are examples of protectionism as well. These protectionism regulations are interrupting the improvement of global sourcing processes.

### 2.7.7 Supplier selection complexity in global sourcing

How to handle global sourcing effectively and efficiently are additional challenges. Supplier selection is a vital aspect in the performance of global sourcing implementation. Unlike dealing with domestic suppliers, the costs involved in identifying, selecting, and evaluating foreign suppliers can be prohibitive.

Supplier selection and evaluation have an important role in the supply chain process and are crucial to the success of a manufacturing firm (Hartley & Choi, 1996). There are several supplier selection methods which persist in the contemporary business world. Supplier selection is a fundamental decision that a buyer makes and also a very critical one.

The process of selecting a group of competent suppliers for important materials, which can potentially impact the firm’s competitive advantage, is a complex one and should be based on multiple criteria. Factors that firms should consider while selecting suppliers suggested by Wisner in 2005 are as follows (Wisner, Leong, & Tan, 2005):

- Product and process technologies
- Willingness to share technologies and information
- Quality
- Cost
- Reliability
- Order system and cycle time
- Capacity
- Communication capability
- Location
- Service

Different companies have different criteria based on their products, price offered, quality, on-time delivery, after-sales services, response to order change, supplier location and supplier’s financial status, etc. (Ting & Cho, 2008). After determining which criteria should be involved in the selection process, choosing a method to calculate or evaluate right suppliers is a complex one.

For supplier selection method, AHP (Analytical Hierarchy Process) is a popular approach used for solving problems which have multiple criteria. This method is applied by a number of researchers and practitioners. It is a widely-used technique which has attained much attention as this process deals with both quantitative and qualitative criteria. It will provide the decision makers with a way to structure this complicated process in the form of a hierarchy which includes three levels of stages: goal, dimensions and criteria (e.g., Narasimhan, 1983; Barbarosoglu & Yazgac, 1997; Nydick & Hill, 1992).
‘Categorical method’ (e.g., Timmerman, 1986; Wills & Huston, 1990) is an example of such methodologies. After establishing a list of attributes to be used in the evaluation process, this method seeks to assess the suppliers’ performance by applying the labels “good,” “fair,” and “poor.” A chosen supplier is the one who receives the most “good” ratings.

‘Cost-ratio method (Timmerman, 1986)’ is another method used in selecting suppliers. By this method, the total cost related to quality, delivery, and service are calculated and expressed as a proportion of the total firm’s purchase price. The supplier selected to by decision makers is one that can provide the lowest cost.

There are numerous other methods that a firm must consider and combine to determine the standards by which suppliers are selected.

How many suppliers to use for each purchased item is another challenge for the purchasing manager. Theoretically, firms should use a single source or as few as possible to enable the development of close relationships with the best suppliers. However, by increasing reliance on one supplier, the firm increases its risk that poor supplier performance will result in plant shutdowns or poor quality finished products.

### 2.7.8 Crucial factors of achieving global sourcing

What kinds of factors are associated with successful global sourcing? According to Monczka, Trent and Petersen analysis, the following eight factors related to desirable global sourcing outcomes were revealed (Monczka, Trent, & Petersen, 2008):

1. Global sourcing initiatives need a defined process. This process needs to be overseen by an executive leader or steering committee. Continual review and improvement of the global sourcing process is one of the best practices.

2. Center-led and coordinated decision-making, through a central perspective to support the integration and coordination process, leads to an effective response to global competition.

3. Site-based or decentralized control of operational activities is more likely to lower total cost of ownership, result in better inventory management across the supply chain, and improve overall performance to external customers.

4. Real-time communication tools simplify a complex process, particularly when participants are geographically dispersed.

5. Successful global sourcing requires not only access to information, but also a willingness to share information.

6. Availability of critical resources, which included budget for travel and living expenses, required information and data, qualified personnel, and time for those personnel to develop the global strategies. A lack of qualified people is one of the most serious problems when organizations pursue global opportunities.
7. Sourcing and contracting systems offer a better way to access data, which will lead to internal systems support the sourcing organization's specific needs.

8. An international purchasing office (IPO) acts as full-service procurement center offering support within a geographic region.

2.8 Summary

In this chapter we have clarified the definition of global sourcing, the mode of global sourcing, the benefits and risks of global sourcing, as well as the problems and challenges of global sourcing, according to the previous studies of this field. We can deeply understand the complexity of global sourcing strategy. Moreover, the problems and challenges of global sourcing must be considered while we appreciate the benefits from global sourcing. However, we found most previous studies about the problems and challenges of global sourcing are based on Western enterprises, while there are few articles about what kinds of problems and challenges Chinese manufacturers are facing when they pursue global sourcing. Are Chinese manufacturers facing the same problems and challenges as western enterprises in global sourcing processes? Or there is something special for Chinese manufacturers? In order to study the purpose of this thesis, these two questions above will be investigated and analyzed in the following chapter.
3 Research Method

The method provides a way for reader to understand how the research has been performed.

3.1 Scientific approach

Based on the study of Arnbor & Bjerke (1997), there are three various scientific approaches used in the research of business: analytical, system and actors approach.

Analytical research means that the whole is the sum of its parts i.e. that it is possible to describe the whole as long as you have all information regarding the parts (Arnbor & Bjerke, 1997). When putting the distinct parts together, we can know the whole from one of them. According to this approach, a problem can be divided into smaller parts and these parts could be solved separately. Causality is always being considered as a significant point in the analytical researcher.

On the contrary, the system approach means that the whole is not the sum of its parts. In contrast with the analytical approach, the systematic researcher does not search for causality. The systematic researcher searches for forces that influence the system and the final relations between them (Clara & John, 2005).

The actors approach means that the whole only exists in the observers mind. In reality the whole is a social construction depending on the social mix of actors (Arnbor & Bjerke, 1997). With regards to the actors approach, there is no reality to observe because this method considers the observer as a part of the reality. Therefore, the outcome will be different if there is another observer, since the observer can interpret the situation differently.

In our thesis, we searched for causal relations. For example, if the logistics activities refer to many international issues, then companies have to suffer more risk in global sourcing processes. In addition, we analyzed the problems and challenges of global sourcing by several small parts. Moreover, in the analytical approach the result of study is always uniform no matter who the investigator is. Furthermore, knowledge developed in the analytical approach is considered as consistent; it does not change over time (Clara & John, 2005). Based on these reasons, we chose analytical approach as our scientific method.

3.2 Choice of research method

3.2.1 Inductive or deductive methods

The difference between inductive and deductive approach is whether the research starts with an observation in the reality or if it starts with a hypothesis derived from theories (Wallen, 1996).
The inductive method is when no theoretical studies are required before the research; instead the theory is developed based on patterns and structures in the empirical data (Clara & John, 2005). The benefit of inductive methods is that when exploring new areas of science, there are no theories to start with; instead, new theories are constructed based on the observations. The disadvantage of using an inductive method is that it is rather difficult to gather and research data with an open mind and without any influence of earlier knowledge (Jacobsen, 2000).

The second approach is deductive approach, which is a hypothesis-testing process. New hypotheses are speculated from the theories and these hypotheses would be tested by empirical data and be validated as true or proven false. Deductive methods are useful in quantitative studies. Using a questionnaire is an example of a deductive and quantitative method. The problem with deductive methods is that the researcher only tests hypotheses that he believes in, out-of-the-box facts are hard to find with deductive methods (Jacobsen, 2000).

There is a third method is called an abductive approach, where the researcher can study the empirical data and theories. The abductive approach basically starts from phenomena, then the researcher attempts to find the driving forces behind these phenomena. There is a problem with the abductive method since it is not a schematic method; it requires extensive experience of similar cases (Wallén, 1996).

Our thesis mainly made use of the inductive approach for studying the problems and challenges of global sourcing. Due to the fact that there is not much previous study relating to Chinese manufacturers implementing global sourcing, our research started from the previous study of this field in Western countries and invested some practical data from the Chinese situations. The situations in China have to be investigated by the observations and qualitative research. Therefore, an inductive approach was mainly utilized in this thesis.

### 3.2.2 Qualitative versus Quantitative

The purpose of our study is to analyze the situation and problems when Chinese manufacturers implement the global sourcing strategy. After reviewing literature and identifying the problems and challenges faced during implementation of global sourcing stated in theory, it is necessary to reveal practical problems and challenges in reality. Therefore both qualitative and quantitative research methods are applicable.

Bryman and Bell (2007) defines that quantitative research is a distinctive research strategy that emphasizes quantification in the collection and analysis of data. It can be described as entailing the collection of numerical data and as exhibiting a view of the relationship between theory and research, in which the purpose is the testing of said theories. The goal of the quantitative method is to add to the body of knowledge through building formal theory which explains the phenomenon (Bryman & Bell, 2007).

In qualitative research, a large amount of information and data is often gathered, in many cases a surplus of information is collected (Hardy & Bryman, 2004). The actual problem of qualitative research is not so much the collection of data; it is rather the making of useful
and valuable data relevant to the defined purpose. The qualitative data is often messy as a result of a lack of clarity in the data required to answer the research questions (Richards, 2005). To organize the work and handle the collected data, researchers should divide it into different categories or topics to simplify the transcribing process (Hardy & Bryman, 2004).

Qualitative research work is being performed when data that is not expressed in numbers is gathered, interpreted and analyzed. Qualitative research offers the opportunity to carefully communicate with and capture the experience of the interviewed participants, while a quantitative research requires standardized measures and is often expressed in form of numbers to verify and test facts (Berkeley, 2005; Patton, 2002).

In this thesis, due to the limitation of time, it is impossible for us to investigate a great number of manufacturers with quantitative methodology. Hence, we chose qualitative research as our methodology. In general, qualitative research is based on three different kinds of data collection methods: interviews, observation and written documents (Patton, 2002). Due to lacking access to resources and time limitations, it was only possible to use interviews, even though the use of all methods would have been preferred.

3.3 Data collection

Data was collected through two methods in this thesis. One of them is primary data, which was collected through questionnaire and interviews, while the secondary data was collected through literature materials referred previously.

The primary data was collected from the investigations of several Chinese manufacturers, which are belonging to six different sorts of industries. We want to view the situation of global sourcing in Chinese manufacturers through the widest lens possible, which is helpful for us to analyze the problems and challenges of global sourcing within a comprehensive perspective. Hence, six different sorts of manufacturers were chosen for investigation. The respondents who answered our questionnaire are from the purchasing departments of these manufacturers. For improving the reliability of data which were collected, more than one person answered our questionnaire in every manufacturer. In addition, the chosen manufacturers are large enterprises except for the toy manufacturer, due to the fact that large enterprises are more capable of pursuing the global sourcing strategy and more directly related with the objective of our study.

3.3.1 Questionnaire

Questionnaire is an academic analysis method, it to be completed by respondents and approved by authors, are useful when a large number of academic questions are to be covered. A questionnaire is a quick and efficient way to obtain information from a large number of respondents. There are two types of questionnaires: structured questionnaire and open-ended questionnaire (Davi Ngo, 2009). The structured questionnaire uses a standardized list of questions, which must cover all questions related to study aspects. Each study aspect should be described in terms of features such as importance, difficulty,
frequency and relationship to performance. The open-ended questionnaire asks the respondents to describe the questions in his or her own words.

The Advantages of questionnaire method (Davi Ngo, 2009):

- Quick and easy to achieve the data
- Can get amount of information in a short time.
- Does not require trained responders.
- Relatively less expensive.

The Disadvantages of questionnaire method (Davi Ngo, 2009):

- Quality of information related to the quality of the questionnaire.
- Often needs follow-up interview or observation.
- May be difficult to construct.
- Responses may be incomplete.

For this thesis, in order to observe and analyze the situation about the implementation of global sourcing in Chinese manufacturers, we utilized a structured questionnaire for collecting most of information and a few open-ended questions for special detailed information from participating enterprises. This questionnaire includes 29 questions related to global sourcing; almost all of which are multiple choice, allowing for a quick comparison of results and easy presentation of data. Because before the construction of these questions for this thesis, we have obtained some information about what problems and challenges companies from Western countries are facing through the study of literature review, so we constructed the questions for Chinese manufacturers that are highly related to these problems and challenges, which can improve the pertinence of this questionnaire.

Specifically speaking, these questions refer to various elements of global sourcing, which include the driving force of global sourcing, the benefits from global sourcing, and problems of global sourcing, and so on.

We began the questionnaire by assessing each company’s progress through the five levels of global sourcing implementation, as formulated by the Trent and Monczka study (Trent & Monczka, 2003). To this end, we asked companies directly about the scope and complexity of their purchasing operations, as well as the relations and level of integration of their purchasing offices and officers. We also ascertained the amount of experience the companies had with global sourcing through a simple question about how long they had been engaging in the practice. We next looked at what factors motivate Chinese companies to pursue global sourcing, and further explored the prominent issues faced by those companies. We chose to focus on problems relating to logistics, culture and language barriers, currency exchange fluctuations, standards and regulations, and supplier selection.
These were chosen because they arose as the most important challenges faced by Western companies in the research reviewed prior to conducting the study.

Some of the questions in this questionnaire are not directly related to global sourcing, because these questions serve as a subsidiary function for achieving the whole study objectives. In addition, they can facilitate this questionnaire to be more continual and understandable.

### 3.3.2 Interviews

The interviews used to collect empirical data and the applied interview procedure description will be listed in detail. For qualitative research, interviews are the dominating method. Interviews can be held and structured in many different ways (Richards, 2005). For instance, interviews can be done via face-to-face, telephone, mail, or e-mail.

For an open-ended question the participants have to think on their own and can answer individually, while for a closed question the researcher provides possible solutions and thereby may influence the participants’ answers (Berkeley, 2005).

Capturing of information is the vital element for the interviews. (Blaxter et al., 2006) suggest two alternatives: audio-taping or taking written notes. Audio-taping allows the researcher to concentrate on the interview and to have eye contact to show interest of what the participant is saying. In contrast, it might make the participants anxious and not willing to answer openly or, in the worst case, even to participate in the interview. Taking written notes allows capturing key points of an interview easily and there is no need to worry about initial sorting and categorizing of the collected data. A disadvantage is that taking notes is very complex, since simultaneous note taking, listening and question-asking is very challenging. Taking notes will not provide a verbatim record (Blaxter et al., 2006).

Due to the requirement of the participating companies to keep the data confidential and the fact that in all interviews, the interviewees refused audio-taping, the study has been conducted through note-taking. This still provided excellent data due to the fact that the questionnaire used referred to some open-ended questiones, offering good guidance to take detailed notes.

The interviews of this thesis were conducted via telephone and mail because all the companies we investigated are located in China, while we wrote this thesis in Sweden. The telephone interviews were supported by a computer communication software program allowing the interviewer to share a computer screen with the interviewees to increase the quality of the telephone interview, due to shared information and real-time feedback. All conducted interviews in this study had a similar quality with an average questioning time of approximately 45 to 60 minutes. The interviews were conducted with two individuals (researcher and interviewee). Interviews can use the form of informal conversational interviews, general interview guide approaches or standardized open-ended interviews (Patton, 2002).
Before we interviewed, the questionnaires about global sourcing were sent to all of them to ensure the quality of the telephone real-time interviews. After we analyzed all the answers from this questionnaire, all the respondents from the purchasing department of each manufacturer were also invited to make detail additional explanations for the question 18 & 28, which could help us to understand the driving factors of global sourcing and reasons for the greatest sourcing challenge in China.

### 3.3.3 Literature study

Literature study is a typical approach for secondary data. The advantage of literature studies is that a base of knowledge in a theoretical area could be obtained swiftly. In this thesis, literature studies were utilized to gain knowledge concerning global sourcing, benefits and challenges, and Chinese manufacturing. The sources of this information were mainly from printed books and relative articles from e-library such as JULIA within the same field.

### 3.4 Credibility of the thesis

The competence can be demonstrated through verification and validation procedures necessary to ensure the quality of the analysis and the development of a record for quality work (Patton, 2002). Thereby the researcher needs to ensure that the found empirical data is valid and reliable. The validity refers to what extent the research reflects reality, and reliability is defined as to what extent the findings of the study can be applied to other situations (Mirriam, 1998). Furthermore, the researchers should be as objective as possible when collecting empirical data, meaning that they should remain neutral during interviews and not influence the participants’ opinions (Huberman & Miles, 2002).

Validity implies that the right things are measured only if the thesis is based on the right data. In this thesis we decided to use triangulation to assure the validity. Triangulation is a powerful technique that enables researchers to validate data through cross-verification from more than two sources. Triangulation offers us more than one point of view of the problems because people in various positions and with various interests were interviewed. In our thesis, the questionnaire was answered by more than two persons from the same purchasing department. And then we combined the answers and compared results to formulate the final outcomes. This method of triangulation increases the validity of the research (Bjorklund & Paulsson, 2003).

A study with high reliability means it would produce the same results if the research were done a second time (Bjorklund & Paulsson, 2003). In our interviews, the reliability increases if the same question is asked more than once in a different way. The fact that we used triangulation also can increase our reliability.

Objectivity is defined as how much personal valuations affect the result of the thesis. We have detected the possibility that personal valuations might affect the results. Therefore we have tried to report as many different opinions from different companies as possible and analyze which opinions are more prevalent. Both the suppliers and the personnel at these
Chinese manufactures could be influenced by the outcomes of this thesis, and therefore could possibly try to lead us in specific directions in the investigations (Bjorklund & Paulsson, 2003).
4 Results of the empirical study

In this chapter, the companies we investigated will be introduced in the first section, and the results of questionnaire will be presented without any individual analysis. However for the analysis of this questionnaire and the compare with previous study model, we will clarify it in the next chapter.

4.1 Introduction of companies

In this section, we will present the results from our investigation. Before these results are given, we are must first introduce what kinds of Chinese companies accepted and responded to our questionnaire. In order to collect the information as comprehensively as possible, the companies we investigated are from six different industries representing a broad range of Chinese manufacturing: automotive, apparel, furniture, computer, electric equipment, and toys. In the results portion, we tagged them as Auto, Apparel, Furniture, Comp, Electric and Toy, respectively:

I. Automotive manufacturer:

As one of the ten largest enterprises in the Chinese automobile industry, this manufacturer has achieved rapid development with flexible operating mechanisms and continual innovation. Currently, this automotive manufacturer has six manufacturing bases of complete vehicles and power assemblies in six cities in China, capable of annually producing 300,000 complete vehicles and 300,000 engines and transmissions. This group has set up a nationwide sale and marketing network which includes nearly 500 4S franchised shops and 600 service stations. This contributes to the fact that there are more than 1.2 million of their cars running on the road globally and their brand is one of the most highly-recognized in China. In addition, in order to improve their international competitive advantage, this group set up more than 300 sales and service dealerships globally and SKD /CKD operations in Eastern Europe and Southeast Asia. They have also imported important parts and technologies from developed countries.

II. Apparel manufacturer:

This apparel manufacturer is one of the leading sports brands in China, possessing brand marketing, research and development, design, manufacturing, distribution and retail capabilities. The group's products include footwear, apparel, accessories and equipment for sport and leisure. The group has established an extensive supply chain management system, and a distribution and retail network in China primarily through outsourcing of manufacturing operations and distribution via franchised agents.

III. Furniture manufacturer:

This is a furniture manufacturer with a long history in China. With about a half century of indefatigable efforts, it has become one of the most famous international brand-name furniture companies. They are mainly focusing on three fields including all kinds of office
and domestic furniture, structural doors and windows, indoor and outdoor upholstery. They manufacture hardwood furniture, soft furniture, and metal furniture. Their client base extends into 31 provinces all over the country including Hong Kong and Macao. Moreover, their products are exported to more than 40 countries and regions, such as America, France and Japan. In order to implement the world’s most advanced manufactory methods, they have introduced more than 20 lines of the most advanced automatic manufacturing processes imported from Germany, Italy, Japan and Switzerland etc.

IV. Computers manufacturer:

This is one of the greatest leading groups of computer manufacturing in China, which strives to be a new world company that makes award-winning PCs for their customers. They operate as a company uninhibited by walls or organizational structures using global sourcing to harness the power of innovation across their global team. Global sourcing is their answer to globalization. And they believe global sourcing fuels innovation, resulting in award-winning PCs for their customers.

V. Electric Equipment manufacturer:

It is a one of the largest white goods manufacturers with a most recognized brand in China. With 29 manufacturing plants, 8 comprehensive R&D centers, 19 overseas trading companies across the world and more than 50,000 global employees, it has developed into a giant multinational company. They believe that the essence of globalization is localization, which means a "Three-in-One" operational framework: complete localization of design, manufacture, and marketing. They aim to use local financing and employees to become a part of the local community while creating a global brand.

VI. Toy manufacturer:

This is a plastic toys factory located in China. Their factory specializes in manufacturing various kinds of infant toys such as infant shake bell, tumbler, music bell, and so on. Their products are sold to global markets such as Europe, America, Middle East, South-east Asia etc. They consider the importance of quality as the first place. However, compared with other companies we interviewed, it is considered a small to medium company in China.

4.2 The answers to questionnaire

1. In which industry is your company mainly operating? 

A. Automotive Industry
B. Apparel Industry
C. Furniture Industry
D. Computers Industry
E. Electric Equipment Industry
F. Toy Industry

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2. Which purchasing level you are experiencing?

Level 1: Engage in domestics purchasing only

Level 2: Engage in international purchasing as-needed

Level 3: International purchasing as part of sourcing strategy

Level 4: Integration and coordination of global sourcing strategies across worldwide locations

Level 5: Integration and coordination of global sourcing strategies with other functional groups

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3. When did you switch from a domestic to an international supplier for the goods you require?

A. 10 years ago

B. 5 to 9 years ago

C. 3 to 4 years ago

D. 1 to 2 years ago

E. Just now

F. Not yet

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4. What kinds of materials you mainly purchase from global sourcing?

A. Raw materials

B. Semi-finished goods

C. Finished goods

D. Energy sources
5. Do you suffer the risk of fluctuation in currency exchange rates when you do global sourcing?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

6. Did you face to the challenge of finding qualified foreign sources when you do global sourcing?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

7. Did you face to the challenge of logistics problems when you do global sourcing?

And what kinds of logistics problem have you faced before? If you had, please clarify here.

A. Not at all   B. Yes, but a little   C. Yes, and intensively

8. Did you encounter the risk of a supply interruption from a foreign source of critical required materials?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

9. Did you reduce the landed cost of goods by sourcing from a supplier with a higher unit cost?  

A. Not at all   B. Yes, but a little   C. Yes, and intensively
10. Did the foreign supplier have significant **quality issues** with materials shipped to you?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

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11. Do you have any **cultural issue** between you and the vendor or potential vendor led to instability of the relationship? If you had, please clarify some examples.

A. Not at all   B. Yes, but a little   C. Yes, and intensively

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12. Do the different standards between different countries affect the processes of global sourcing in your company?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

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13. Do any regulations such as customs duties affect the processes of global sourcing in your company?

A. Not at all   B. Yes, but a little   C. Yes, and intensively

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14. If you have the suppliers from other countries ,what are the **relationships** between your company and the foreign suppliers? **Several answers possible**

A. We do not have the supplier from other countries
B. Sister company
C. Long term relationship
D. Short term relationship
E. Just for one time

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15. What is the most priority when you select a foreign supplier? 

- A. High quality
- B. Low price
- C. High technology
- D. After service

16. Did you have to increase the material inventory levels when you purchase these materials from abroad?

- A. Not at all
- B. Yes, but a little
- C. Yes, and intensively

17. Do you utilize intermodal transportation for the key material you purchased from abroad?

- A. Not at all
- B. Yes, but occasionally
- C. Yes, frequently

18. Please clarify the greatest sourcing challenge you have faced when you do global sourcing.

- A. Fluctuation in currency exchange rates
- B. Finding qualified foreign sources
- C. Just-in-time sourcing requirements
- D. Logistics support for longer supply lines
- E. Lack of knowledge about duty/custom requirements
- F. Lack of knowledge about foreign business practices
G. Culture/language difference affecting communication
H. Nationalistic attitudes and behaviour
I. Understanding the political environment
J. Others, please specify:

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19. Do you utilize a 3PL when you purchase materials from other countries?
A. Not at all  B. Yes, but occasionally  C. Yes, frequently

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20. Do conduct an audit of a potential vendor overseas?
A. Not at all  B. Yes, but occasionally  C. Yes, frequently

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21. Can you learn some knowledges about the foreign market when you do global sourcing from there? ( )
A. Not at all  B. Yes, but a little  C. Yes, and intensively

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22. Have you ever replaced a preferred vendor because the changes in exchange rates?
A. Not at all  B. Yes, but occasionally  C. Yes, frequently

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23. Has a miscommunication with a foreign supplier ever led to a conflict with that supplier?
A. Not at all  B. Yes, but occasionally  C. Yes, frequently
24. Did you set up an international procurement office to identify suppliers and manage global sourcing processes?

A. Yes

B. No, but we are planning to

C. No, and we do not need it

25. Which are the most important competitive factors in your industry?

- Cost
- Quality
- Flexibility
- Customer retention/service
- Innovation
- Technology
- Time/Speed
- Other (please specify):

26. Compared to your main competitors, please rate the current competitive position of your company in each of the following areas.

- Cost
- Quality
- Flexibility
- Customer retention/service
- Innovation
- Technology
- Time/Speed
- Other (please specify):

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<td>Quality</td>
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27. On which hierarchical level is the International Purchasing Officer with the highest rank in your company situated?

A. Level 1 – Management Board
B. Level 2 – Divisional Director
C. Level 3 – Head of Department
D. Level 4 – All lower levels
E. N/A

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28. What importance did the following factors have for your supply organization's original decision to pursue global sourcing?:

- Cost savings
- Increased quality of procured goods
- Access to more advanced technology, innovative goods: Electric and Furniture Chose
- More flexibility concerning supply sources
- Faster product development cycles
- Reducing supply risks
- Product only available abroad
- Compliance with import quotas
- Opening up of new sales markets
- Prevention of delivery bottleneck
- Sourcing of middle/low tech goods
- Sourcing of high tech goods

According to the result, the strongest driving force is 'Access to more advanced technology, innovative goods.' 'Increased quality of procured goods,' 'Sourcing of high tech goods,' and 'Opening up of new sales markets' are the second strongest driving forces for Chinese manufacturers. On the other side, the reasons of 'Cost savings and sourcing of middle/low
tech goods' are not as important for the Chinese manufacturers to pursue global sourcing strategy, which is different from most manufacturers in developed countries. The further detailed answer will be analyzed in the next chapter.

29. Compared to other companies in your industry, how do you rate the strategic global sourcing behavior which has significant influence on your overall procurement strategy?

A. First mover
B. Early Adopter
C. Follower
D. Wait-and-see attitude
E. N/A

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5 Analysis of the problems and challenges of global sourcing in Chinese manufacturers

In this section, the empirical data obtained through the questionnaire will be analyzed separately according to the model we constructed in the Chapter 2. We will also make a comparison between the theoretical and empirical data on problems and challenges of global sourcing witnessed in China.

5.1 State of Chinese manufacturing industry

The Chinese manufacturing industry has achieved a dramatic increase in the 30 years since the government implemented the policy of reformation and opening markets. There are two reasons driving the evolution of Chinese manufacture: One is huge internal demands from local markets, namely the demands from construction of basic infrastructure and higher demands to improve the living standard for Chinese people. Another one is the transfer of international manufacturing industry (Xu K., 2005).

Due to the fact China is experiencing the middle stage of industrialization, the Chinese manufacturing industry plays a crucial role in the rapid growth of Chinese GDP. Currently China is the third largest economy in the world, after the USA and Japan.

Chinese manufacturers, including 17 sub-industries, can be classified into three main parts. The first part includes light industry, textile industry and commodity manufacture, which accounts for 30.24% of manufacturing in China (Xu K., 2005). The second part is resources machining industry, including the processing of rock oil, petrochemicals, rubber, and nonmetal and so on, which holds one-third of the whole gross in the Chinese manufacturing industry. The third one is the manufacturers of mechanisms and the electronics industry, which almost occupies 35% of Chinese manufacturing. In addition, all the products from the resources machining industry are totally offered for the domestic market. But almost half of the products from the other two industries are produced for export.

Although Chinese manufacturing industry is developing rapidly, there is still a notable gap within the international advanced level.

First, Chinese labor productivity is too low, which equals 4.38% of the USA, 4% of Japan and 5% of Germany.

Second, Chinese manufacturers consume enormous amount of energy and contribute to pollution. The energy consumption for one unit product goes beyond the international standard by 20% to 30% (Xu K., 2005).

Third, a majority of Chinese products belong to the low-end product category with lower added-value. The products for export also have a lower technological component, which basically comes from the labor-intensive industry.
However, every coin has two sides. The shortcomings of Chinese manufacturing industry we mentioned earlier are also helpful for the Chinese society from another perspective. Because China has to tackle her unemployment issues in a bold manner, given her enormous population, the low-tech and labor-intensive industry is an appropriate option for the country.

In contrast with exported goods from China, the majority of products imported by Chinese manufacturers are high-technology goods. In China, 95% of manufacturers who integrate circuits depend on imports from abroad. The percentage of imported equipments for automotive manufacture has reached 70% (Xu K., 2005). It is a similar situation in industries of numerical-control machine tool and textile manufacturing equipment.

Considering the developing situation in the Chinese manufacturing industry, there are two pressing problems Chinese manufacturers have to face:

The first problem is highly energy consumption. China is experiencing a rapidly developing state of industrialization which leads to high demand of raw materials and energy sources (Xu K., 2005). Moreover, raw materials and energy sources in China are extremely short for the huge population. The Chinese are striving to develop solar energy as an alternative energy source for the future, but they have to deal with the technology obstacles inherent in attaining this goal.

A related problem to resources is environmental pollution. The emissions of CO2 in China would account for 17.2% of the world’s total by 2020 if they do not adopt effective measures (Xu K., 2005). Consequently, the growth of manufacturing industries depending on quantity cannot be suitable for curbing use of resources and protecting the environment. High-tech green manufacturing skills must be introduced and adapted by Chinese manufacturers in order to increase the added-value of products and limit the consumption of resources and energy sources.

The second problem is lack of independent intellectual property rights of patent technology. The Chinese government accepted 37,800 patent applications from abroad during 2001 while the number of Chinese applications of patent overseas was less than 2,000, most of which are related to Chinese medicine and health commodities and seldom refers to the high-technology and technical manufacturing skills (Xu K., 2005). The Chinese government should offer greater financial support toward promoting technology and carry out home-grown innovation instead of simple copying, which violates the intellectual property rights of others.

### 5.2 Do Chinese manufacturers implement global sourcing?

For the manufactures in developed countries, a large percentage of them are pursuing global sourcing strategy and they have received considerable benefits from it. Most of these companies chose China as their purchasing base because of the low-cost and abundant resources. Chinese manufactures obtain lots of benefits from globalization as products suppliers. Now the interesting questions are: “Do Chinese manufacturers
experience and partake in globalization as purchasers? Do they pursue a global sourcing strategy?" In our questionnaire, question 3 and 29 are related to these two questions. We can obtain some information from them.

3. When did you switch from a domestic to an international supplier for the goods you require?

   A. 10 years ago  
   B. 5 to 9 years ago  
   C. 3 to 4 years ago  
   D. 1 to 2 years ago  
   E. Just now  
   F. Not yet

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29. Compared to other companies in your industry, how do you rate the strategic global sourcing behavior which has significant influence on your overall procurement strategy?

   i. First mover  
   ii. Early Adopter  
   iii. Follower  
   iv. Wait-and-see attitude  
   v. N/A

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From the investigation of several Chinese manufacturers, global sourcing has already been implemented in Chinese manufacturers to some extent. Given that the companies we chose were large companies, the answer shows most of selected companies are implementing global sourcing. However, from the responses to question 33, we can conclude that there are still many companies not yet carrying out a global sourcing strategy and the ones that are lag behind. From question 3, we observe that half of the companies have been sourcing from international suppliers for five to nine years and the remainder have been for less than that. Therefore, from the perspective of scale, global sourcing in
Chinese is still in the nascent stage. Hence, it is a fair assumption that many of the problems Chinese manufacturers face will arise from inexperience.

5.3 The level of global sourcing in Chinese manufacturers

We can investigate the status and position of the international purchasing department in a company to judge what level of global sourcing they are implementing. In the questionnaire, both question 24 and 27 are designed for investigating the position of the international purchasing department in these companies. So we can obtain some information from them about what role international purchasing plays.

24. Did you set up an international procurement office to identify suppliers and manage global sourcing processes?

A. Yes
B. No, but we are planning to
C. No, and we do not need it

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We can find the position of international purchasing officer is not very high in these companies, which means the international purchasing department fulfills an independent or supportive role in the companies instead of being integrated from the top down. This situation will minimize the effects of global sourcing strategy. As we noted earlier, studies
of Western companies have found that effective global sourcing is centralized and directed from the top as a part of the corporation’s overall strategy. The most successful companies have an executive or a steering committee coordinating international procurement. (Monczka, Trent, & Petersen, 2008). The electrical equipment manufacturer was the only company to have a divisional director as the head of international purchasing. This is most likely because the need for high technology pushes the electrical equipment manufacturer to pursue international purchasing more aggressively, because of the shortage of technology in the domestic market. The remainder employed a department head or lower official. None of the corporations used a board-level procurement officer.

Furthermore, question 2 is designed to investigate the purchasing level of different manufacturers, which can help us to know the level of global sourcing in China as well.

2. Which purchasing level are you experiencing?

A. Level 1: Engage in domestic purchasing only
B. Level 2: Engage in international purchasing as-needed
C. Level 3: International purchasing as part of sourcing strategy
D. Level 4: Integration and coordination of global sourcing strategies across worldwide locations
E. Level 5: Integration and coordination of global sourcing strategies with other functional groups

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As the results from our questionnaire show, most of the companies we examined are at the lower levels within the global sourcing progression framework, as postulated by Trent and Monczka. (Trent & Monczka, 2003). The apparel and furniture manufacturers are purchasing internationally on an as-needed basis, the automobile manufacturer is purchasing internationally as a part of a sourcing strategy, and the toy manufacturer still only purchases from domestic sources. We see a pattern. The extent to which companies pursue a global sourcing strategy is positively correlated with the level of technology involved. This seems to indicate that the decision to source globally for Chinese companies has more to do with access to high technology and quality goods rather than searching for the lowest price. Hence, the toy manufacturer, a low-tech enterprise, continues to source locally, whereas the electric equipment manufacturer and computer manufacturers have a higher level.

As a first mover of global sourcing, Haier Group (the electrical equipment manufacturer) has achieved Level 5 which the most advanced level of global sourcing. Haier group employs a B2B network managed through its Web site iHaier.com enabling global supply chain management through the use of the latest information technologies. Haier Group set up some manufacturing factories in Thailand in order to make use of local resources,
meanwhile they can cut down the tariffs and penetrate local markets directly to compete with other manufacturers.

5.4 Driving force of global sourcing in Chinese manufacturers

Question 28 is designed for investigating the driving force of global sourcing for Chinese manufacturers.

28. What importance did the following factors have for your supply organization's original decision to pursue global sourcing?:

- Cost savings
- Increased quality of procured goods
- Access to more advanced technology, innovative goods
- More flexibility concerning supply sources
- Faster product development cycles
- Reducing supply risks
- Product only available abroad
- Compliance with import quotas
- Opening up of new sales markets
- Prevention of delivery bottleneck
- Sourcing of middle/low tech goods
- Sourcing of high tech goods

According to the result, the strongest driving force is 'Access to more advanced technology, innovative goods.' For example, Haier group purchased the equipment and product lines in Thailand from a Japanese company. Through this process they can get access to advanced technology. The furniture manufacturer purchased advanced production equipment from Germany and Switzerland, so that they could improve their productivity and quality through the use of advanced technology. ‘Increased quality of procured goods,’ ‘Sourcing of high tech goods,’ and ‘Opening up of new sales markets’ are the second strongest driving forces for Chinese manufacturers. For example, the computer manufacturer purchased high-tech software from the U.S. and then installed it to their finished personal computers in order to improve their competitive position in the computer market.

On the other side, the reasons of 'Cost savings and sourcing of middle/low tech goods' are not as important for the Chinese manufacturers to pursue global sourcing strategy, which is different from most manufacturers in developed countries. Manufacturers in China have
access to plenty of low-cost goods domestically. Conversely, they lack access to high-tech, high-quality goods.

5.5 The model of analyzing problems and challenges of global sourcing in Chinese manufacturers

As we know, the objective of this thesis is to investigate and analyze the problems and challenges of global sourcing in Chinese manufacturers. The results from this part are the most important data for analyzing and making the conclusion of this thesis.

Are these problems and challenges same as with other countries? Or is there something unique to Chinese manufacturers? In this section, we will first clarify the outcomes of our investigation and then we are going to analyze the answers and situation in the next chapter.

5.5.1 Problems and challenges from logistics

In the questionnaire we used three questions (7, 16, 19) to investigate whether or not logistics is a serious problem for Chinese manufacturers to pursue global sourcing strategy.

7. Did you face to the challenge of logistics problems when you do global sourcing?

And what kinds of logistics problem have you faced before? If you had, please clarify here.

A. Not at all      B. Yes, but a little   C. Yes, and intensively

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16. Did you have to increase the material inventory levels when you purchase these materials from abroad?

B. Not at all   B. Yes, but a little   C. Yes, and intensively

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19. Do you utilize a 3PL when you purchase materials from other countries?

A. Not at all   B. Yes, but occasionally. C. Yes, frequently

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The answers show that all of companies we investigated do not consider logistics issues as main challenges for them in their global sourcing strategy although there are three of them chose 'a little ' in the question 7.

Another outcome we can see clearly is that the utilization of 3PL, or third-party logistics, plays an important role for the companies which are implementing global sourcing strategy. Also, we note that this shows immaturity in the development of a global sourcing strategy. In a company that is employing global sourcing effectively, logistics should be coordinated and managed by an in-house team.

5.5.2 Problems and challenges from culture and language

In the questionnaire we used two questions (12, 23) to investigate whether or not culture and language issues are serious problems or challenges for Chinese manufacturers to pursue global sourcing.

12. Do you have any cultural issue between you and the vendor or potential vendor led to instability of the relationship? If you had, please clarify some examples.

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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</table>

23. Has a miscommunication with a foreign supplier ever led to a conflict with that supplier?

A. Not at all  B. Yes, but occasionally  C. Yes, frequently

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We found cultural issues are not serious for Chinese manufacturers when they implement global sourcing. The managers of Chinese manufacturers thought they normally purchase high-tech products from other countries with an open-minded attitude of learning and appreciating cultural differences. Therefore, even if there are some cultural conflicts, they always accept it and show respect for other cultures. It is an appropriate way to facilitate cooperation in global sourcing.

However, the manager of the automobile manufacturer mentioned that some suppliers from other countries show serious misgivings for about leaking technology to Chinese manufacturers. Because the lack of a firm and well-defined intellectual property regime in China, foreign suppliers are cautious in cooperating with Chinese manufacturers. Although this conflict does not affect the process of global sourcing greatly, Chinese manufacturers must show they are adamant about protecting the intellectual property of others and Chinese legislation protecting intellectual property needs to be further refined. Otherwise it would be an obstacle for Chinese manufacturers to pursue a global sourcing strategy.
Another factor influencing global sourcing to some extent is language in China. Due to distinct differences between Chinese and other languages, Chinese people are more lack English or other language skills compared with other foreigners, which sometimes can lead to the misunderstandings especially when it comes to highly-technical issues. But the problem of language is more pronounced for small businesses according to the manager of the toy manufacturer.

5.5.3 Problems and challenges from fluctuation of currency

In the questionnaire we used two questions (5, 22) to investigate whether or not fluctuation of currency is a serious problem for Chinese manufacturers in implementing a global sourcing strategy.

5. Do you suffer the risk of fluctuation in currency exchange rates when you do global sourcing?

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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22. Have you ever replaced a preferred vendor because the changes in exchange rates?

A. Not at all  B. Yes, but occasionally  C. Yes, frequently

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From the answers we can see the fluctuation of currency did not affect the implementation of global sourcing so much in Chinese manufacturers. Most of companies expressed they pay attention to the fluctuation of currency and other currency policies, but it is not a decisive factor. Besides, they seldom replaced their supplier according to the changes in exchange rate.

5.5.4 Problems and challenges from standards and regulations

In the questionnaire, we used two questions (11, 13) to investigate whether or not different standards and regulations are serious challenges for Chinese manufacturers.

11. Do the different standards between different countries affect the processes of global sourcing in your company?

B. Not at all  B. Yes, but a little  C. Yes, and intensively

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13. Do any regulations such as customs duties affect the processes of global sourcing in your company?

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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According to the investigation and the communication of Chinese manufacturers in global sourcing, the problems of standards are not that serious when they import some goods from abroad.

However, the managers of the automaker clarified that high custom tariffs in Chinese regulations cause some problems for the automotive industry.

### 5.5.5 Problems and challenges from supplier selection

In the questionnaire we used four questions (6, 8, 10, 20) to investigate whether or not supplier selection is a serious problem or challenge for Chinese manufacturers to pursue global sourcing strategy.

6. Did you face to the challenge of finding **qualified foreign sources** when you do global sourcing?

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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8. Did you encounter the risk of a **supply interruption** from a foreign source of critical required materials?

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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10. Did the foreign supplier have significant **quality issues** with materials shipped to you?

A. Not at all  B. Yes, but a little  C. Yes, and intensively

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20. Do conduct an audit of a potential vendor overseas?

A. Not at all      B. Yes, but occasionally C. Yes, frequently

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From the answers we can conclude that the selection of suppliers in global sourcing is a great challenge for Chinese manufacturers. Regardless the fields of this companies, all of them admitted that the challenges from selecting an ideal foreign supplier or partner are deeply influencing their processes in global sourcing. The problems like supply interruption and quality issues are familiar in this companies when they implement global sourcing strategy.

In addition, according to the answer to this section, we found the selection of suppliers in global sourcing is an intractable problem for Chinese manufactures. Hence we made two additional interviews in order to investigate the reason of this phenomenon. Two of manufacturers we interviewed in computer and electric industries deem the lack of experience and systematic, well-defined selection criteria are the main reasons for this issue.

In order to analyze the problems and challenges faced by Chinese manufactures, we examined the following five aspects. Because these aspects were important for analyzing the issues in Western companies according to previous studies, we are following this model as a way to achieve our analytical objectives in this thesis.

**Logistics**

In global sourcing, international logistics is a necessary and crucial component. Logistics in global sourcing refers to plenty of additional problems such as transportation delays, border-crossing procedures and longer inventory management (e.g., Boyce, 1999; Bradley, Thomas, Gooley, & Cooke, 1998). Without a doubt, Chinese manufacturers have to face this complicated situation of logistics. In most cases, developing countries are seriously lacking in experience with the most advanced approaches and are usually unfamiliar with the high-standard requirements, such as sequence deliveries combined with Just-In-Time; electronic data interchange communications and vendor-managed inventory solutions (Cho & Kang, 2001).

**Culture and language**

Differences in languages always threaten the cultural communication and even technical transfer in global sourcing. Moreover, main personnel of corporations in developing countries do not always have sufficient command of English or of other Western languages to engage in lengthy or detailed exchanges (Accenture, 2007).

**Fluctuation of currency**
Stability of currency facilitates international trade, while instability makes it more complex and introduces risk (Cook, 2006).

**Standards and regulations**

According to our theoretical study, the main regulations affecting global sourcing are tariffs and quotas (Sowinski, 1999). Non-tariff restrictions including complicated documentation requirements for border-crossing processes, and many kinds of international trade bills are also difficult challenges which the buyers from abroad have to face (Cho & Kang, 2001).

**Supplier selection**

Supplier selection and evaluation have an important role in the supply chain process and are crucial to the success of a manufacturing firm (Hartley & Choi, 1996).

**The different ranked challenges between Western manufacturers and Chinese manufacturers**

According to the study of Salleh and Mohammad (Salleh & Mohammad, 2006), they consider 'fluctuation of currency', 'supplier selection' and 'logistics support' as most crucial challenges facing global sourcing.
6 Conclusion

According to our investigation of Chinese manufacturers the problems emanating from logistics do not annoy Chinese manufacturers very much. Three of the six manufacturers who responded said that logistics was not a problem at all and the other three reported that it was only a minor problem. We arrived at this conclusion after telephone interviews with several manufacturers. Basically, three reasons account for this:

First, most of the companies we investigated, such as the computer manufacturer and Haier, are large and experienced enterprises, having special logistics departments to deal with logistics problems, even in complicated global sourcing processes.

Second, some manufacturers such as the furniture manufacturer have only purchased some advanced equipments from abroad only two or three times so logistics issues are not an ongoing problem.

Third, the utilization of 3PL, or third-party logistics, can provide professional services to help them to overcome the challenges from logistics in global sourcing. And as our questionnaire found, five out of six of the Chinese companies surveyed use 3PL frequently.

When it comes to the long lead time and high-level of inventory, it is unavoidable in global sourcing. Chinese manufacturers are also experiencing these challenges to some extent. Four out of six reported that they had to increase inventory when purchasing from abroad, although not very often.

In addition, Chinese manufacturers that purchase materials from abroad are enjoying the relative lower price of international transportation because the fact export from China costs more than the import. Basically, the cargo ships returning to China are emptier than the ships departing from China, which leads to the cheaper transportation costs for importing goods from abroad because of the simple economics of supply and demand.

Generally speaking, the cultural difference between Chinese culture and Western culture are quite pronounced. However, with the motivation of economic globalization and positive cultural communication, cultural problems can be overcome for Chinese manufacturers when they implement global sourcing.

But language issues sometimes affect the processes in global sourcing for Chinese manufacturers. According to the study by Edward T. Hall, Chinese language belongs to high context culture while Western languages belong to low context culture. This means some phenomenon and problems expressed in the Chinese language are not very direct and clear compared with Western speaking habit. The habit of communication in China differs from the Western one; hence some technical problems maybe arise because of the misunderstanding between two sides. This problems and challenges are more serious for the small and medium Chinese companies who are newcomers to the global sourcing strategy. Five out of six of those companies we interviewed reported occasionally having problems with sources because of miscommunications.
based on the investigation of several Chinese manufacturers, the risk of a fluctuating currency is not a major problem for Chinese manufacturers. Five out of six of the companies surveyed reported that they suffered increase risk because of currency fluctuations, but they also reported that the risk was minor. Perhaps more telling is that only two companies reported switching suppliers due to currency fluctuations, and this occurred infrequently. The important driving force for Chinese manufacturers is improving technology instead of cost-savings. On the contrary, the fluctuation of exchange rates is driving them to do further global sourcing. According to the investigation of the apparel manufacturer, they are preparing to increase the importation of eiderdown from America because of the appreciation of Chinese Yuan. Hence, owing to the appreciation of Chinese currency, it is beneficial for Chinese manufacturers to pursue global sourcing.

As the theoretical portion of this thesis has shown, many international business organizations are striving to unitize different standards in order to facilitate international cooperation. Existing industrial standards which are not synchronized with international standards or expectations still can cause costly troubles and even the failure of global sourcing. However, according to our investigation and analysis, the problems of standards and regulations are far more serious when Chinese manufacturers export goods abroad as compared to when they import. Because this manufacturer normally procures high-tech materials or products from developed countries, they consider the standards of these goods as their model. Hence the problems from standards are not obstacles for Chinese manufacturers in global sourcing.

The automotive and electrical equipment manufacturers both said that tariffs were a serious problem when pursuing global sources and three other manufacturers reported that it was a minor problem only.

The managers of the automaker clarified some problems of the auto industry in China. They confessed Chinese manufacturers’ lack of ability to invent and manufacture the crucial parts of an automobile such as the engines and gear-boxes. Therefore they have to introduce this related technology or parts through global sourcing. However the higher customs duties and the restrictions of some technology from Chinese regulations are barriers to global sourcing. They have to suffer the lower competitive advantages caused by expensive importing costs incurred through global sourcing. Consequently, the problems and challenges caused by regulation do exist when developing global sourcing processes for Chinese manufacturers.

The managers from Chinese manufacturers also mentioned the significance of supplier selection in global sourcing. Moreover, from the questionnaire we can conclude the selection of suppliers in global sourcing is a great challenge for Chinese manufacturers. Four out of six reported that supplier selection was a serious problem, another reported that it was a minor problem and the toy manufacturer, which does not source overseas, reported that it was not a problem at all. Two companies surveyed reported that they
suffered a serious risk of supply interruption from a foreign supplier, and three reported that there was some degree of risk.

First, Chinese manufacturers lack a systematic method for selecting foreign suppliers. Second, Chinese manufacturers prefer to select suppliers by 'Guanxi' (Personal relationship), which is an obstacle for them to obtain a real appropriate and qualified supplier in global sourcing where relationships are impersonal. Third, after all, most Chinese manufacturers are beginners in global sourcing strategy and the lack of experience makes it hard for them to select a qualified, international partner.

To be specific, lack of a complete sourcing and contracting system is hindering the evolution of global sourcing for Chinese manufacturers. According to the interview of some companies, the challenge for global sourcing is the systematic use of E-commerce, which is the groundwork of sourcing and contracting system. Chinese manufacturers need to be aware of the fact that global sourcing is a kind of procurement mode using E-Commerce, which is one of the prerequisites for implementing the global sourcing strategy.

With the support from E-Commerce, another challenge to selecting a supplier in global sourcing is the establishment of strategic supplier selection mode. We proposed the model below, which can be a suggestion for Chinese manufacturers to overcome this challenge.

However, we found the situation in China different to some extent. For Chinese manufacturers, due to the lack of experience and low level of procurement mode they are seriously facing the challenge of ‘Supplier selection’. Also, protectionist policy ranked highly for Chinese manufacturers because as we mentioned earlier, Chinese regulations place high tariffs on some foreign technologies such as auto parts.

All in all, this table shows different ranked challenges between Western and Chinese manufacturers.

Table 6-1 The different challenges ranking between western manufacturers and Chinese manufacturers. (own source)

<table>
<thead>
<tr>
<th>Challenge ranking</th>
<th>Western Manufacturers</th>
<th>Chinese Manufacturers</th>
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<tbody>
<tr>
<td>1</td>
<td>Fluctuation of currency</td>
<td>Supplier selection</td>
</tr>
<tr>
<td>2</td>
<td>Supplier selection</td>
<td>Lack of global sourcing experience</td>
</tr>
<tr>
<td>3</td>
<td>Logistics support</td>
<td>Protectionist policy</td>
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<td>4</td>
<td>Culture/language differences</td>
<td>Logistics support</td>
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<tr>
<td>5</td>
<td>Nationalistic attitude</td>
<td>Culture/language differences</td>
</tr>
<tr>
<td>6</td>
<td>Understanding the political environment</td>
<td>Understanding the international commercial regulation</td>
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Nowadays the world’s economy is experiencing a decline or recession caused by financial crisis. As the third biggest economic entity and the most booming developing country; China should take a greater share of responsibility in stimulating the world’s economy as much as possible. More and more Chinese enterprises will take part in the activities of globalization and more Chinese manufacturers will be active in pursuing a global sourcing strategy, which is not only beneficial for them to obtain more competitive advantage, but also meaningful for the world economy to optimize global resources more rationally and efficiently. However, pursuing global sourcing is a long, complicated process and there are numerous setbacks to be overcome. In this complicated situation, there is no universal compass to pursue global sourcing.

From the study of this thesis we know there are several important issues like different culture and fluctuation of currency which can affect the success of global sourcing according to the previous researchers. For inexperienced Chinese manufacturers, they have to face these problems and challenges as well and they should pay more attention to the challenges from logistics capabilities, selecting foreign sources, and they should petition the government for the relaxation of protectionist regulations. Managers should also consider elevating the position of their international procurement offices and officers to a more centralized position within the company in order to effectively coordinate international purchasing as part of an overall global strategy.

All in all, the business processes of pursuing global sourcing for Chinese manufacturers are showing both opportunities and challenges, which is also significant and meaningful for the worldwide globalization.

For the theoretical implications, we recommend that supplier selection in global sourcing for Chinese manufacturers should be researched more deeply in order for them to develop systematic criteria. After all, it is one of the most serious challenges for Chinese manufacturers in the pursuit of a global sourcing strategy. Some processes like obtaining the information from more suppliers, optimizing and systemizing the global sourcing process and supplier base, and keeping more long-term win-win strategic relationship with their suppliers within the global scope require further study and field survey.
References


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QiJunling. (2007). Supplier selection model construction in Global sourcing. HEXIN QIKAN.


Questionnaire

1. In which industry is your company mainly operating?
   A. Automotive Industry
   B. Apparel Industry
   C. Furniture Industry
   D. Computers Industry
   E. Electric Equipment Industry
   F. Toy Industry

2. Which purchasing level you are experiencing?
   Level 1: Engage in domestics purchasing only
   Level 2: Engage in international purchasing as-needed
   Level 3: International purchasing as part of sourcing strategy
   Level 4: Integration and coordination of global sourcing strategies across worldwide locations
   Level 5: Integration and coordination of global sourcing strategies with other functional groups

3. When did you switch from a domestic to an international supplier for the goods you require?
   A. 10 years ago
   B. 5 to 9 years ago
   C. 3 to 4 years ago
   D. 1 to 2 years ago
   E. Just now
   F. Not yet

4. What kinds of materials you mainly purchase from global sourcing?
   B. Raw materials
   B. Semi-finished goods
5. Do you suffer the risk of fluctuation in currency exchange rates when you do global sourcing?
   A. Not at all    B. Yes, but a little    C. Yes, and intensively

6. Did you face the challenge of finding qualified foreign sources when you do global sourcing?
   A. Not at all    B. Yes, but a little    C. Yes, and intensively

7. Did you face the challenge of logistics problems when you do global sourcing?
   And what kinds of logistics problem have you faced before? If you had, please clarify here.
   A. Not at all    B. Yes, but a little    C. Yes, and intensively

8. Did you encounter the risk of a supply interruption from a foreign source of critical required materials?
   A. Not at all    B. Yes, but a little    C. Yes, and intensively

9. Did you reduce the landed cost of goods by sourcing from a supplier with a higher unit cost? (    )
   A. Not at all    B. Yes, but a little    C. Yes, and intensively

10. Did the foreign supplier have significant quality issues with materials shipped to you?
    A. Not at all    B. Yes, but a little    C. Yes, and intensively

11. Do you have any cultural issue between you and the vendor or potential vendor led to instability of the relationship? If you had, please clarify some examples.
    A. Not at all    B. Yes, but a little    C. Yes, and intensively

12. Do the different standards between different countries affect the processes of global sourcing in your company?
    C. Not at all    B. Yes, but a little    C. Yes, and intensively

13. Do any regulations such as customs duties affect the processes of global sourcing in your company?
    A. Not at all    B. Yes, but a little    C. Yes, and intensively
14. If you have the suppliers from other countries, what are the **relationships** between your company and the foreign suppliers? Several answers possible (  )

A. We do not have the supplier from other countries
B. Sister company
C. Long term relationship
D. Short term relationship
E. Just for one time

15. What is the most **priority** when you select a foreign supplier? (  )

A. High quality
B. Low price
C. High technology
D. After service

16. Did you have to increase the **material inventory levels** when you purchase these materials from abroad?

C. Not at all  B. Yes, but a little  C. Yes, and intensively

17. Do you utilize **intermodal transportation** for the key material you purchased from abroad? (  )

A. Not at all  B. Yes, but occasionally  C. Yes, frequently

18. Please clarify the **greatest sourcing challenge** you have faced when you do global sourcing. (  )

K. Fluctuation in currency exchange rates
L. Finding qualified foreign sources
M. Just-in-time sourcing requirements
N. Logistics support for longer supply lines.
O. Lack of knowledge about duty/custom requirements
P. Lack of knowledge about foreign business practices
Q. Culture/language difference affecting communication  
R. Nationalistic attitudes and behaviour  
S. Understanding the political environment  
T. Others, please specify: (  )

19. Do you utilize a 3PL when you purchase materials from other countries?  
   A. Not at all  B. Yes, but occasionally  C. Yes, frequently

20. Do conduct an audit of a potential vendor overseas?  
   A. Not at all  B. Yes, but occasionally  C. Yes, frequently

21. Can you learn some knowledges about the foreign market when you do global sourcing from there?  
   (  )  
   A. Not at all  B. Yes, but a little  C. Yes, and intensively

22. Have you ever replaced a preferred vendor because the changes in exchange rates?  
   A. Not at all  B. Yes, but occasionally  C. Yes, frequently

23. Has a miscommunication with a foreign supplier ever led to a conflict with that supplier?  
   A. Not at all  B. Yes, but occasionally  C. Yes, frequently

24. Did you set up an international procurement office to identify suppliers and manage global sourcing processes?  
   A. Yes  
   B. No, but we are planning to  
   C. No, and we do not need it

25. Which are the most important competitive factors in your industry?
26. Compared to your main competitors, please rate the current competitive position of your company in each of the following areas.

- Cost
- Quality
- Flexibility
- Customer retention/service
- Innovation
- Technology
- Time/Speed
- Other (please specify):

27. On which hierarchical level is the International Purchasing Officer with the highest rank in your company situated?

A. Level 1 – Management Board
B. Level 2 – Divisional Director
C. Level 3 – Head of Department
D. Level 4 – All lower levels
E. N/A

28. What importance did the following factors have for your supply organization’s original decision?
to pursue global sourcing?:

- Cost savings
- Increased quality of procured goods
- Access to more advanced technology, innovative goods
- More flexibility concerning supply sources
- Faster product development cycles
- Reducing supply risks
- Product only available abroad
- Compliance with import quotas
- Opening up of new sales markets
- Prevention of delivery bottleneck
- Sourcing of middle/low tech goods
- Sourcing of high tech goods

29. Compared to other companies in your industry, how do you rate the strategic global sourcing behavior which has significant influence on your overall procurement strategy?

A. First mover

B. Early Adopter

C. Follower

D. Wait-and-see attitude

E. N/A

Thank you very much for answering this questionnaire!
If you wish to be informed of the results of this investigation please indicate your email address: