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Supply chain management between Finland and China: Empirical evidence from Vaasa region



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**Supply chain management between Finland and
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Authors Maaria Pennanen, Matti Muhos, Lingyun Wang, Pekka Kess		Type of publication Working paper
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Name of the report SUPPLY CHAIN MANAGEMENT BETWEEN FINLAND AND CHINA: EMPIRICAL EVIDENCE FROM VAASA REGION		
Abstract <p>This study is part of the CHISU project. Economic growth has increased rapidly for many decades and China offers a lot of possibilities for both large and small companies. This study focuses on purchasing from China and defining the supply chain between Finland and China. The intention is to help SMEs planning to start collaboration with Chinese suppliers. This study focuses on SMEs in Vaasa region.</p> <p>First, this study reviews Chinese markets and development of its economy. The trade between Finland and China was observed as well. Second, the theoretical part of the study focuses on supply chain and supply chain management. In addition, attention is paid to global supply chain and global purchasing as global purchasing has become a critical strategic decision for companies competing on a global basis. Third, in the empirical part of the study, four case companies were interviewed. The goal was to find out the fluency of the supply chain, how the process has developed and what kinds of problems have occurred.</p> <p>The results of the study show that the main factors affecting the selection of suppliers are price, quality, loyalty, and know-how. In general, companies have been very satisfied to the cooperation with Chinese and the supply chain process has been very fluent. Chinese people are hardworking, friendly and precise, and they really respect their customers. In the future, the interest towards China seems to increase. China is offering a numerous chances, and by benefiting these chances might offer assets and success to the companies. However, creating relationships to China takes a great deal of investments, and it includes risks as well. Anyhow, cooperation may offer both business development potential, and opportunity for learning.</p>		
Keywords China, supply chain management, global purchasing, small- and medium -sized company, SME		
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1 Introduction

This report is based on master's thesis conducted by Maaria Pennanen, which was made in the Department of Industrial Engineering and Management at University of Oulu in 2010. The study was made as a part of CHISU (Building an internationalization process for Chinese markets) -project funded by European Regional Development Fund (ERDF). The objectives of CHISU -project is to better understand the opportunities and threats in doing business in China, understand the business decisions and actions needed to utilise some of the potential, and to help companies (SMEs) to start collaboration in China.

1.1 Background and motivation

Multinational corporations have become interested in China's enormous market for goods and services. In China, western firms face a business environment that differs from their home country conditions. However, there are several ways for these firms to learn about this market. International sourcing refers to the purchasing of materials, components, and finished products from foreign suppliers. International purchasing thrives from globalization, communication technology, and transport system development, as well as the reduction of international trade boundaries. (Carlsson et al. 2005) These issues have typically developed rapidly in the Chinese market within the near history, making it one of the most attractive sourcing markets. Since most big retailers are now sourcing from China, smaller wholesalers and retailers typically wonder whether they should do the same, but are often put off by the complexities of getting started. China is the third largest exporter in the world, so there are plenty of serious and high quality suppliers. China is a world's fastest growing economy, and its economy has grown already almost 30 years (Kettunen et al. 2008). China is the second largest economy in the world after the United States, and it accounts for 7.5 % of the world's total economic activity.

China experienced rapid economic growth in the 1950s and early 1960s. China has opened up its economy to foreign investors, and transnational corporations have become interested in China's potentially enormous market for goods and services (Roy et al. 2001). China and its reforming markets have increasingly attracted the attention of Western companies, because of its expanding markets and low labour costs. China constitutes an important country for sourcing and in today's global economy China is increasingly seen as a key area for international purchasing. (Salmi 2006.) Finnish companies started to do business in China already in 1950's. Large companies started to move to China gradually in 1980's, but big wave of investments happened in 1990's, when subcontractors and contract manufacturers were forced to follow their customers. SME's moved to China mainly in 2000's. Motives of the companies are based on the

China effect, which means cheaper manufacturing costs, and huge potential of the markets. But it must be remembered, that whoever goes to China must be ready to face unforeseen events, surprises, risks and delays. The lure of enormous markets and profits in China comes entangled with various sources of risks and uncertainties.

China has provided outsourcing services for more than 30 years and Western companies has outsourced their manufacturing to China. To succeed in China, a Chinese partner plays a key role. Specifically, foreign firms making their initial entry into China's market have found it almost impossible to succeed without a Chinese partner. (Wong & Maher 1997.) Guanxi is a key concept for understanding social behaviour in China, especially the linkage between interpersonal relations and the attainment of desirable resources, and entails a strong social obligation to do favours for another person. The development of personal trust is highly important in China. (Björkman & Kock 1995.) Business environment in China is differs from environment of Western firms and creates different challenges. One way to learn about Chinese markets is to be present in China and acquire knowledge of the Chinese market. There are two different ways to manage cultural distance; either the company uses a trustworthy partner familiar with Chinese business culture (intermediaries, an agent) or the company itself invests in building and nurturing long-term business relations. The way for Western companies to ensure and increase commitment from the Chinese side is to build up personal relations. Personal relations are also important for overcoming barriers in communication.

The aim of this study is to learn from the companies that already are purchasing from China, or have outsourced their production to China, and to provide practical guidelines especially for SMEs. This study may help SMEs to benefit from the China -effect, and build their own internationalization process. Nowadays SMEs are increasingly interested in Chinese markets, and they are purchasing from China and outsourcing their production to China. More information is needed of how to purchase from China and what needs to be taken into account.

This study aims to clarify the process of purchasing from China from Finnish SME's perspective. Purchasing is a key part of the supply chain and global purchasing has become a critical strategic decision for companies competing on a global basis. Global sourcing and management of supply base have become critical competences. Managing suppliers from a wide range of countries implies operational complexity and relatively high learning cost on how to manage intercultural relationships. There are still a lot of complexities in global purchasing. Long lead times, environmental uncertainty, lower levels of quality, extension of supply lines, delivery risk, cultural differences and purchasing professionals' lack of skills and capabilities required to manage globally are the biggest impediments in global purchasing. Global sourcing may be important to a firm's competitive position as a means to access raw materials, improve quality, lower cost, or access technology. These aforementioned things are very important when purchasing from China and the focus of this study is on these things.

1.2 Research problem and questions

The research problem is to define and understand the supply chain between Finland and China, and learn how to manage it from SME perspective. The main purpose of this study is to address the significance of supply chain management and how it works between Finland and China. It is important to find out how this supply chain operates

and who the suppliers in this chain are. The focus is on purchasing and how SMEs can purchase from China and what they have to take into account. This research process is expected to help SMEs to succeed in the international sourcing business, and especially when sourcing from China. Global purchasing has become an important element in SMEs way of doing business. The competition is getting harder and companies have to be cost effective. China offers lots of possibilities for SMEs, but companies must be also aware of different risks. The culture in China differs from the Western countries so it good to know how to do business with Chinese, what is important to Chinese people, and what they are respecting etc.

This study focuses on three research questions presented in Table 1.

Table 1. Research questions of this study

Research questions:
Q1: What kind of possibilities Chinese markets offer to Finnish SMEs?
Q2: How to manage supply chain and global purchasing?
Q3: How the case-companies have created their supply chain to China and which are the most important factors when choosing the suppliers?

The *first* research question introduces Chinese markets and represents different possibilities. This research question is answered in the second chapter, but also in different parts of the study. The first question is quite large, because China can offer different kind of possibilities, and that's why it covers the whole study. The *second* research question is answered in the second chapter of the study. Supply chain is defined, and one goal is to understand how to manage the supply chain and what kind of cooperation is needed in the supply chain. Globalization has influenced in the increase of global purchasing and this study tries to get answer how to manage the global purchasing process. The final, *third* question concentrates on interviewed case-companies. The question is answered in the empirical section of this study. The purpose is to find out how the case-companies have created their supply chain with Chinese, and what needs to take into account. This research process is expected to help SMEs to succeed in the international sourcing business, and especially when purchasing from China. The purpose is to define the supply chain between China and Finland, and analyze the chain. The answer to this question is getting from the case companies and their experiences.

1.3 Scope and limitations

The research questions define the scope of the research. This study aims to define the supply chain between China and Finland, and the focus is on purchasing. China offers different kind of possibilities and this study tries to find out how Finnish SMEs can benefit from China and what they have to take into account when doing business with Chinese companies. China offers lot of opportunities and many Finnish companies have found an own factory to China. This study is focusing only purchasing and how companies can benefit Chinese markets in that way. Companies that are exporting to China are not included in this research.

This research is limited to small and medium sized enterprises that are purchasing from China and are located in Vaasa-region. It is much easier to handle SMEs purchasing than larger companies. Usually larger companies have their own subsidiaries in China which is making the process even more complex. Larger companies and companies that has founded an own subsidiary in China has left outside of this study.

Altogether four companies have been interviewed. Also the amount of case –companies is one of the limitations. Too many companies in the research will not add any value to the study, and makes it even more complicated. It also makes harder to compare companies and represent the results. If the situation is vice-versa, there will be not enough results, and they will not be valid for the research.

1.4 Research approach and methods

According to Yin (1994), a case study is a research methodology common in social science. It is based on an in-depth investigation of a single individual, group, or event to explore causation in order to find underlying principles. The research method is both qualitative and quantitative. Qualitative research is a type of scientific research. In general terms, scientific research consists of an investigation that seeks answer to a question, systematically uses a predefined set of procedures to answer the question, collects evidence, produces findings that were not determined in advance and produces findings that are applicable beyond the immediate boundaries of the study. Additionally, qualitative research seeks to understand a given research problem or topic from the perspectives of the local population it involves. When used along with quantitative methods, qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data. (Family Health International 2010.)

The three most common qualitative methods, explained in detail in their respective modules, are participant observation, in-depth interviews, and focus groups. Each method is particularly suited for obtaining a specific type of data. Participant observation is appropriate for collecting data on naturally occurring behaviours in their usual contexts. In-depth interviews are optimal for collecting data on individuals' personal histories, perspectives, and experiences, particularly when sensitive topics are being explored. Focus groups are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups represented. (Family Health International 2010.) This research is qualitative, because it seeks answer to a question, collects data from literature and produces findings.

Quantitative research involves gathering data that is absolute, such as numerical data, so that it can be examined in as unbiased a manner as possible. Quantitative research generally comes later in a research project, once the scope of the project is well understood. The main idea behind quantitative research is to be able to separate things easily so that they can be counted and modelled statistically, to remove factors that may distract from the intent of the research. Quantitative research generates statistics through the use of large-scale survey research, using methods such as questionnaires or structured interviews. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships. Quantitative methods are research techniques that are used to gather quantitative data - information dealing with numbers and anything that is measurable. Statistics, tables and graphs, are often used to present the results of these methods. They are therefore to be distinguished from qualitative. (McGuigan 2010.) In this study, some quantitative evidence is shown as well.

1.5 Research process

This chapter describes the research process step by step. The overall process is presented in Fig. 1.

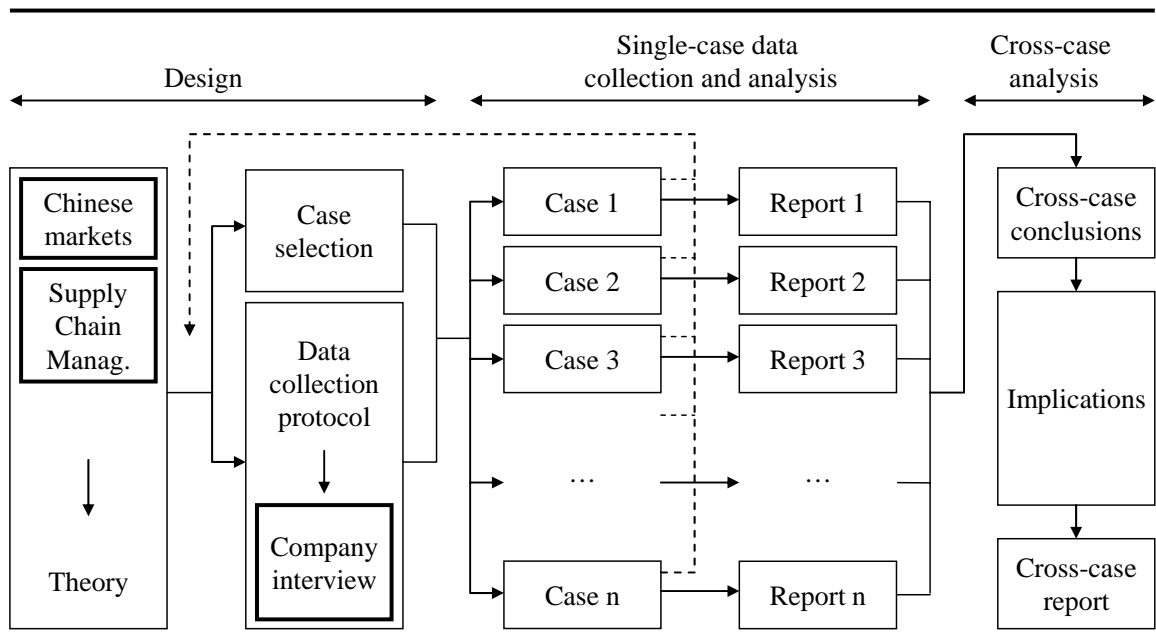


Fig. 1. The research process

The first part of the research establishes a theoretical background based on the research questions. Background, research problem, research questions, scope and limitations, and research method were specified first. The literature research was conducted to provide theoretical background for the study. Literature offers a basis for understanding the main objectives of the study and helps to create the empirical part of the research. Literature is covered from the fields of the supply chain management, internationalization, Chinese markets and global purchasing. The subject of this research has not been discussed directly in the literature but the theoretical part has been collected together from different parts and articles to form a complete picture for the theoretical part. In the end of the second chapter the theoretical part of the study is summarized.

The empirical part of the study focuses on interviewed case -companies. The empirical part is introducing all interviewed companies and how they are operating with Chinese suppliers and also, what needs to take into account in supply chain management. The third research question is answered in this chapter three. The questions of the interview are as attachments in the end of this study. Altogether four companies have been interviewed and the results are discussed in the empirical part of the study. Template of the interview questions has four different parts; in the first part the basic information of the company is asked. The second part concentrates on purchasing from China, why companies have chosen Chinese suppliers and what they are purchasing. In the third part, the purpose is to define the supply chain between Finland and China and how the cooperation is working. In the last part, the focus is on internationalization, how the companies have developed their internationalization and what their plans are for the future. This empirical part tells how these interviewed companies cooperate with Chinese suppliers and how the cooperation has developed. Finally all these interviews are summarized. The goal is to find similarities but also differences between different companies and their cooperation with Chinese.

In the end of the paper, the whole study is summarized. The final section is presenting an analysis of the research, its key findings and their implications. This final chapter represents the answers to the research questions, discusses the reliability of this study and suggestions for future research. Chapter five, conclusions, concludes the whole study and discusses the final words of this research.

2 Theoretical framework

In the theoretical framework, the most important theories concerning the Chinese markets and supply chain management are introduced. First, the focus is on Chinese markets and how the markets have developed. Second the supply chain management is presented and how the supply chain works globally. Then the focus is on global purchasing and internationalization. In the end of this chapter, all theories are summarized.

2.1 Chinese markets

The market is large and growing. China experienced rapid economic growth in the 1950s and early 1960s. Food production increased fast, and it could not keep pace with the rising population, and by the early 1970s China was importing food. The economic growth of China is remarkable since the outset of the reform program in early 1980s. In 1995, China's post-economic-reform boom was at its height. This was the time of double digit growth in China and Southeast Asia. Western companies were scrambling to get in and the reason was obvious: China was the place to go to make money. (Ambler & Witzel 2004.) According to International Business Review (2008), it is China's entrepreneurial spirit, its humility to learn from the West, its courage to experiment new things, and its determination to never give up that have affected to China's growth.

Before China's open door policy took effect in 1978, only domestic goods were available in its market. Foreign products soon became popular because their quality was perceived as superior. This stimulated improvement in Chinese goods. (Wong & Maher 1997.) In the mid-1970s China was isolated from the rest of the world and poor in absolute terms. The country was in its history's deepest crisis. In 1979 China promulgated its first joint venture law to attract foreign capitalists to invest in China. The reform experiment started in 1980 in south China, when people were allowed to earn more by performing better. Modern infrastructure, production facilities and logistics networks were built up and special tax and land policies were implemented to attract foreign as well as domestic entrepreneurs to invest in these zones. (Luo 2008.) In 1991-1995, China's market appears to have evolved from the introductory to the growth stage. This is evidenced by higher personal income levels, a geographically expanding market, an increase in both foreign and local competition, and a growing consumer preference for quality products. Foreign firms have clearly gone beyond market exploration and are engaged in product development and market share enhancement. (Wong & Maher 1997.)

The Asia Crisis of 1997-1998 was a wake-up call for many investors from both West and East who had predicted that the boom would go on forever (Ambler & Witzel

2004). However, the financial crisis which hit Asia's economy after 1997 did not cause a slowdown of China's development as some analysts feared: the decrease in trade exchanges with the bordering countries that had been heavily stuck by the crisis (Thailand, South Korea, Indonesia, Malaysia and the Philippines) was offset by the import-export growth with the western countries. (Nassimbeni & Sartor 2006.) In December 2001, China formally became a member of the WTO (World Trade Organization). China's ascension into the World Trade Organization (WTO) is consistent with China's avowed commitment to transform its entire economy from a controlled autarchy or closed planned economy into an open, more market-oriented economy, i.e., a socialist market economy, and Chinese firms have become increasingly active in going international. (Coldwell 2004, Luo 2008.)

According to Luo (2008), China's transformation would not have been possible without active learning from the West. For example, more and more Chinese universities and business schools are setting up joint programs with foreign counterparts. They are also having joint programs and faculty exchanges with Western schools. However, China faces massive challenges, such as the growing inequality, the degraded natural environment, the declining capabilities of the state, the widespread corruption within the Chinese Communist Party, the psychological challenges in China's integration with the global economy at a time of unprecedented individualism and materialism, and the extreme dangers in engaging closely with the global financial systems. It is also a challenging task for China to train and develop its human resource (HR) and adopt best suitable HR management theories and practices on Chinese soil. How China will meet these challenges would cause an enormous impact on global politics, economy, and international business.

China is the only major economic power still showing signs of steady growth. However, that does not mean there are no economic problems in the country. The problem of reforming state-owned enterprises remains as critical as it was years ago. Over in the private sector, huge investment in manufacturing, especially of consumer goods, has led to massive oversupply and price deflation. Yet even with this deflation, China's economy continues to grow at a very healthy 6-7 per cent a year. Much of the growth has been created by China's burgeoning exports, not only of consumer goods but increasingly of light machinery and electronics. (Ambler & Witzel 2004.)

China has opened up its economy to foreign investors, and transnational corporations have become interested in China's potentially enormous market for goods and services (Roy et al. 2001). China and its reforming markets have increasingly attracted the attention of Western companies, because of its expanding markets and low labour costs. China constitutes an important country for sourcing and in today's global economy China is increasingly seen as a key area for international purchasing. (Salmi 2006.)

According to Nassimbeni & Sartor (2006), China's success does not only drive from its low labour cost. It is the result of decades of accurate central strategic planning, the outcome of a logistic system that, if not perfect, is better by far than any other system existing in developing countries. China means strong internal competition, pride and the ambition to become the strongest economy in the world.

China is a world's fastest growing economy, and its economy has grown already almost 30 years (Kettunen et al. 2008). China is the third largest economy in the world after the United States and Japan, and it accounts for 7,5 % of the world's total economic activity. China stepped up its roaring pace of economic recovery in the final quarter of last year, beating official growth targets and putting it on course to become the world's second-biggest economy behind the US later this year. Gross domestic product (GDP) rose by 10.7 per cent in the fourth quarter, compared with the final three months of 2008. China's economy grew by 8.7 per cent overall last year, boosted by

government stimulus and an unprecedented flood of new bank lending, which some believe is creating strong inflationary pressures. (Lewis 2010.) The competition has getting harder and also the cost level has grown very fast in China, especially in growth centre in Shanghai, Beijing and Guandong. Global financial crisis is causing challenges for China because of waning in export markets. (Kettunen et al. 2008)

Biggest threats for China's economical growth are global financial crisis, pollution of environment, lack of legislation, inflation, lack of energy, ageing of population, raise of wage level, corruption, inequality of people living in the different regions of the country, and also the status of the migrant workers living in the cities. (Kettunen et al. 2008)

Jari Saario wrote in his article in Kauppalehti (51/2010) that in this moment, world leans to China. But the newest marks in China's economy are frightening: inflation has growth highest level in sixteen months, which is almost three percents. Industrial output jumped 20,7 percent in January and February. If China would fell, the economical crash would expand via US to Europe. This means that demand of products from Western corporations would decrease, and corporations invested in China could be in serious trouble. Even the fear of breakdown would be a clear message to world's economical situation. To put it in simple way, the production has to divide more balanced between different continents. The history of GDP growth rate-% is presented in following Fig. 2:

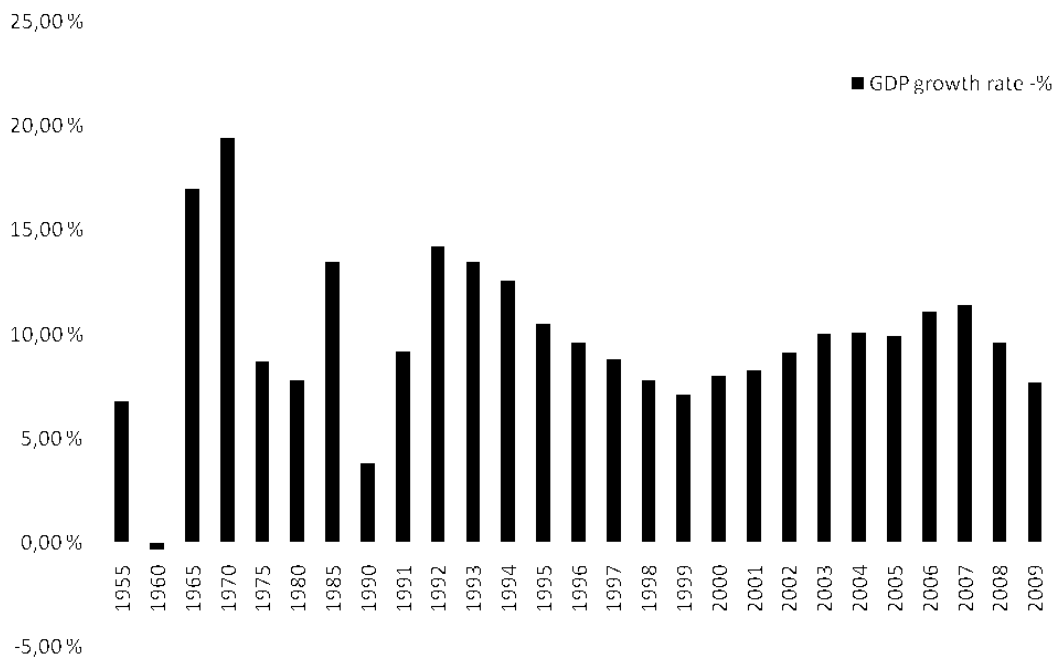


Fig. 2. GDP growth rate-% in China 1955-2009. (Chinability 2009.)

2.2 Trade between China and Finland

Finland-China Trade Association was founded in 1985 with a purpose to collect and supply information about the Chinese market, trade and economic cooperation, in addition to laws and regulations. The Association is also a contact forum for companies and individuals dealing with Finnish-Chinese trade and economic cooperation. Today Finland-China Trade Association has more than one hundred members. Companies starting their activities in the Chinese market or ones planning to enter it benefit greatly

from these contacts, as personal relationships and networks (*guanxi*) are vital in dealing with the Chinese. (Finland-China Trade Association 2010)

Finnish companies started to do business in China already in 1950's. It was so called *Three Party Agreement*, and it was also handled as special arrangement. Large companies started to move little by little in 1980's, but big wave of investments happened in 1990's, when subcontractors and contract manufacturers were forced to follow their customers. SMEs moved to China mainly in 2000's. Motives of the companies are based on the China effect, which means cheaper manufacturing costs, and huge potential of the markets. Tough competition and orientation to new operational environment are the biggest challenges for Finnish companies in China. (Kettunen et al. 2008.)

Finnish-Chinese trade has been in strong growth since 1990's. Major part of the trade is import and export by larger companies, when the shares are 87 % (per cent) from export and 71 % (per cent) from import. China has raised among Finland's biggest trade partners. In the year 2007, the value of the import was 4,5 billion Euros, which meant 8,5% growth compared to year 2006. However, import grew significantly steadily than two previous years. Actual years of growth were 2004 and 2006, when annual growth of the Chinese trade was over 30%. (Kettunen et al. 2008)

Finnish-Chinese trade has been showing deficit since year 2002. The adverse balance of trade has been growing rapidly during last years. Despite the subtle constriction, China has maintained its position in sixth largest trade partner of Finland. In the year 2008, Finnish export to China grew 4%, and was worth of 2059 Million Euros. China was also Finland's largest trade partner in Asia. Share of export was 0,4% for the total amount. In the year 2008, import from China declined 2% from the previous year. Finland's import from China has grown rapidly since 2002, and it was worth of 4365 Million Euros. Share was 7 % from total Finnish import. (Kettunen et al. 2008.)

According to reliable information sources, the direct investments from Finland to China are about 5 Billion Euros. In addition, Finnish companies are investing to China via other countries. Net sales of the companies are approximately 10 Billion dollars, and they have 40 000 employees (both blue –and white collar workers). There are also fairly 260 Finnish companies in China; half of them are operating by production, and other half has agency and sales offices. Biggest Finnish companies in China are: Elcoteq, Metso, Nokia, Wärtsilä, Kone, Konecranes, Perlos, Stora Enso and UPM-Kymmene. (Kettunen et al. 2008.)

Today, the newcomers in Chinese markets are mainly SMEs. Most of the Finnish companies are located in Beijing-Shanghai -area, but also in south Hongkong and delta of the Pearl River. There is a little action in Western- and Northeast parts of the China. The production costs have been rising in the coast-area, due to the industrialisation. For aforementioned reason, companies have started to move their production from coast to inland. Finnish national airline, Finnair, has four routes to China: Beijing, Shanghai, Guangzhou and Hong Kong (Finnair flight to Guangzhou was closed on 2008. So far, there are three flights to China: Beijing, Shanghai, and Hongkong.). (Kettunen et al. 2008)

If we consider the situation vice-versa, we are getting the conclusion that the Chinese investments so far are very limited (Approx. 11 Million Euros). Only a few Chinese companies are operating in Finland. Traditionally the trend in investments has been in energy- and raw material sectors. (Kettunen et al. 2008.)

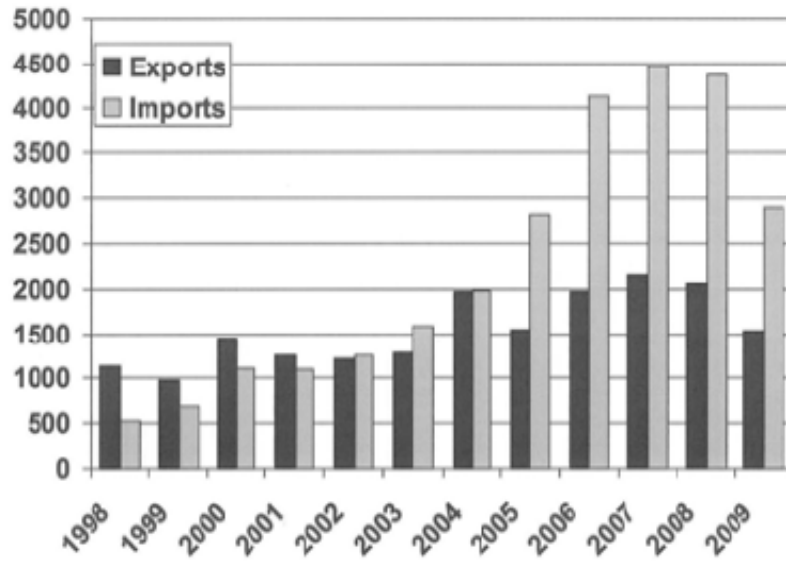


Fig. 3. Trade between Finland and China 1998-2009 (Million €). (Elinkeinoelämän keskusliitto 2010.)

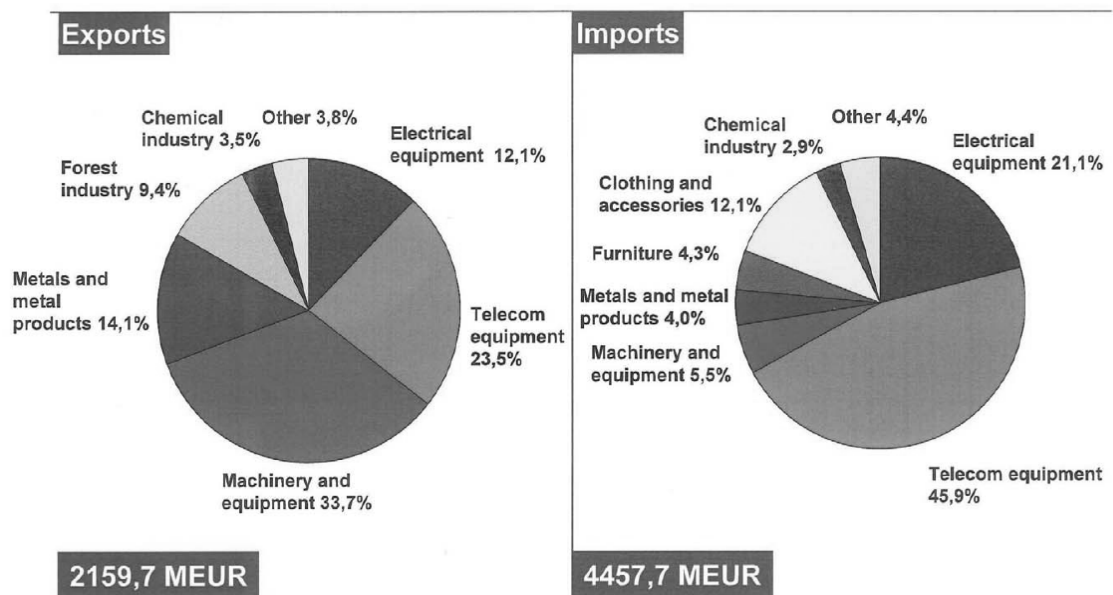


Fig. 4. Trade between Finland and China by sector in 2007. (Elinkeinoelämän keskusliitto 2010.)

2.3 Finland and China compared

2.3.1 Culture

The Chinese culture is often based on individualism and confrontation, and it has high collectivism and power distance (Wong & Maher 1997, Leung 2008.). Concepts, such as face, harmony, guanxi (interpersonal connections), renqin (compassion), and paternalistic leadership could describe Chinese culture (Leung 2008). Chinese work hard and they are relatively low in uncertainty avoidance. Leung (2008) stated that China will become more similar to Western cultures in its value orientation as it becomes wealthier. Still Chinese endorses many traditional values, such as the willingness to sacrifice for the family, concern for interpersonal relationships, and acceptance of hierarchies.

The work behaviour of Chinese is shaped by the competitive ethos and a strong urge to succeed. It is good to notice, that despite of its fast growing economy, China is still a developing country and many parts of China are still poor industrial activities. Succeeding in China is not easy, and most university graduates find it hard to secure a good job. Leung (2008) stated that the desire for materialistic achievement encourages Chinese to be enterprising, diligent, and focused. However, greed and immorality have also caused widespread corruption and unethical business behaviour. The Chinese may be long-term oriented in some contexts, but they are short-term oriented at work. Long-term planning is essential for the sustainable success of a firm, but many Chinese may not be interested in such activities. Multinationals in China must work extra hard to engage their Chinese employees in long-term planning activities and convince them of the paramount importance of a vision for the future.

China has huge market potential and its cost structure is low. It gives a lot of possibilities to multinational companies, but it also poses many challenges for foreign firms in Chinese markets. Knowledge of Chinese people is a useful starting point. China is complex and diverse, and while some Chinese are traditional, others may be ultracompetitive and direct. Knowing about face and guanxi is certainly useful, but expatriates cannot assume that this knowledge is applicable to all the Chinese people that they encounter. Multinationals should also be sensitive about the differences between the social behaviour and economic concerns of Chinese people, because the social behaviour of Chinese is likely to be influenced by traditional norms and values, and their economic behaviours are likely to be driven by contemporary social ethos and institutional characteristics. In social interactions, being sensitive about Chinese values and norms can avoid misunderstanding and unnecessary irritation. In economic decisions, however, considerations based on cost-benefit analyses and economic rationality may prove most helpful. (Leung 2008.)

2.3.2 Legislation

A company cannot commence its business in any country without consulting the national legislation (Yang & Clarke 2005). China's legislative system has gone through significant reforms since the end of the 1970s. China didn't have many legislative activities in 1978, but when China began to open its markets to outside world, private ownership business increased, it was obvious that China needed appropriate legal mechanism and it started to change its legislation. Reforms have changed the

legislatures and the legislative process considerably and have led to an increase in legislative publications that have been very limited. (Xue 2005.)

Result of legislative reform is that 400 laws, 1000 administrative acts, 10 000 local rules and regulations, and 30 000 administrative procedures were enacted or amended by the end of 2002. Laws and regulations are probably the most systematically collected and published legislative documents in China. However, there have been some developments in legislative publications: laws and regulations are published systematically in Chinese and English, and selective legislative and juridical interpretations are also available from different channels. There is still way to go to satisfy the Western research approach of studying legislation, but this is a big improvement when comparing to 1979. There are still problems to access legislative information in China and information in English is limited, but in the future legislative publications may be standardized and then also the access will become much easier. (Xue 2005.)

Special attention has been paid to formulating the following types of laws: laws to regulate market participants; defining their rights and obligations, laws to regulate relationships among market participants in a bid to ensure fair competition and good market order, laws to improve the government's macro-economic control to ensure a healthy economic growth and restrain negative factors, and laws to generate a social security system to cope with problems such as bankruptcy and unemployment, to provide relief, and to retain social stability. (Xue 2005.)

Yang & Clarke (2005) stated that when foreign firms are doing business in China, they should abide by Chinese laws or international treaties and agreements if Chinese laws do not cover the specific disagreement. Therefore, it will be of use for managers to be familiar with the four major ways of dispute settlement—consultation, mediation, arbitration and litigation in China. When disputes occur, business people in China tend to seek consultation first, i.e. parties in dispute try to resolve their disagreements and conflicts through negotiations between themselves without involvement of any other parties. As a result, they may set aside their differences and look for common interests and compromise for the benefit of cooperation between them.

Due to the speedy establishment of the legal system, there are many gaps in interpretation of legal issues. First of all, business people will have to consult not only the laws relevant to their businesses, but also the related regulations and rules issued by different layers of government. Secondly, if government officials arrive at a different understanding of the laws and regulations due to their distinct educational background and experience, this may result in practical difficulties. Thirdly, the legal system is complicated by the translation of Chinese to English, in its ambiguities among rules, regulations and laws. As the original version of all these is in Chinese, there often exists confusion in the English version. (Yang & Clarke 2005.)

2.3.2.1 Intellectual property rights

According to Yang & Clarke (2005), intellectual property (IP) refers to the legally protected rights given to people over their intellectual creations in the scientific, industrial, artistic and literary fields, under which the owner has the exclusive right of creation for a certain period of time and any exploitation, must be under the consent of the owner. In recent years, one of the dramatic changes in IP is the gradually expanding scope of protection, which is controversial amongst scholars and between nations. Presently, the sustained protection of IP in most developed countries has been standardized by international organizations, such as the World Trade Organization (WTO) and World Intellectual Property Organization (WIPO), and most developing

countries are pushed rather than encouraged to conform to the standards of different types of IP-patent, utility model, industrial design, mark and copyright.

Protection has become more complicated than ever before and the globalization has increased the need for protection. Some products need to be protected across different IP. Computer programs and databases are typical examples. Three rights can protect those— patents, trade secrets and copyrights depending on the country concerned. One reflection is the formation of the World Trade Organization and the collaboration between the WTO and other IP related organizations, such as WIPO and UNESCO (United Nations Educational, Scientific and Cultural Organization), to coordinate and assist member states in implementing their IP system. The protection raises the technology transfer, nation-to-nation IP activities and training, and cultural exchange. Finally, clear evidence of globalization in IP is the integration of IP within international trade and foreign direct investment. (Yang & Clarke 2005.)

The impact of global IP environment on China is clearly shown by various aspects. Firstly, China has been active internationally. The initial move was to become a member of WIPO in the 1980s. Since then, China has ratified many IP related international treaties, and conventions. The most recent example is that China became a member of the WTO in 2001 after 15 years of active and protracted negotiations. Secondly, China established and has endeavoured to perfect its new IP system. In the 1980s, China quickly established its own legal mechanism, with administrative and judicial organs to guide and administer IP activities, and resolve IP related disputes. These laws were drafted based on the international treaties and conventions. (Yang & Clarke 2005.)

Despite the aforementioned facts, the Chinese legal system, while markedly improved over the past five years, still does not provide adequate protection to IP rights when high technology is being transferred to or developed in China. All companies entering the market in China are required to establish a legal entity under Chinese law. In recent years the main vehicle for this has been the Wholly-Owned Foreign Entity (WOFE). There are a number of advantages to setting up a captive WOFE – the foreign investor in a WOFE does not need to negotiate with a Chinese enterprise matters such as the scope of operation, number of workers, percentage of exports and changes in control or ownership of the business. Responsibility for the daily operations of a WOFE lies solely with its own management. This provides its foreign parent with greater control over its day-to-day operations and makes it easier to protect IP rights as they are transferred and created. The greatest IP risk in these circumstances is the leakage of IP or trade secrets to competitors or the misappropriation of trade secrets by employees. (Kennedy & Clark 2006.)

2.3.3 Labour force

A labour market in the conventional sense did not exist in China prior to economic reform which was launched in 1978. For almost four decades from 1953 to 1978, the majority of Chinese workers in urban areas were entirely dependent on the state for their employment. However, in spite of strict bureaucratic control over the recruitment process, it was a common practice that jobs were passed down from parents to their children. The highly unpredictable future of the workers and the widening gaps in power and income between the managers and the workers become milestones of the transition towards the market economy, a direct consequence of the radical changes in labour rights. Workers had to improve their skill capacities in order to survive in a new working environment, and to put up with uncertainty and insecure. (Kwok Hoi Yee 2006.)

The Chinese are very hard-working, but they admire the objective, efficient way in which business is done in the West. Chinese managers have improved their managerial skills, and many have visited Western countries for short-term management training. Management has been a serious problem in China, because the generation, now aged 40 to 50, have got the most important positions in China's state-owned enterprises because of the power they achieved during the Cultural Revolution. They have no respect for authority, and foreign firms are reluctant to hire or deal with them. However, China has a younger, hard-working generation and it is willing to educate and train itself. They take pride in working for foreign firms and in adapting to new challenges. They will also make doing business in China much easier. (Wong & Maher 1997.)

China has opened up its economy and the international competition has grown. It has also faced employment challenges while it has moved toward knowledge- and service-based economy. One of China's biggest challenges during the transition is how to create 100–300 million new jobs in the coming decade to absorb the millions of laid-off workers from state-owned firms, rural migrant workers and newly added labour force. Chinese workers and their families have lost the job security and social welfare. The government wants to bring in policies aimed at restoring a more harmonious society, and China's new Labour Contract Law, which became effective on 1 January 2008, can be considered as being part of the attempt to grapple with this issue. (Chen & Funke 2009.)

2.4 Business relationships with Chinese companies

Nassimbeni & Sartor (2006) pointed out, that the reactions of western companies to the rise of the new economic colossus have been interesting and diverse. Some have seen China's growth as a great market opportunity for their products and have opened manufacturing facilities and sales organizations in the most developed provinces. Others have realized that it is useless to compete on `labour intensive` products and have outsourced to the local industry part of their manufacturing processes. Many organizations have moved part of their supplies to China, while others have still to decide what to do. SMEs that cannot deal with large volumes have created consortia or buy through distributors. China has provided outsourcing services for more than 30 years and Western companies has outsourced their manufacturing to China. The attention has also focused on China's capabilities in relation to research and development and IT outsourcing. Increasing numbers of companies are now bringing in high technology products to be manufactured in China. (Kennedy & Clark 2006.)

It is important to remember that buying or investing in China is not a risk-free tour and that every joint venture or productive investment will not instantly give the expected results. Whoever goes to China must be ready to face unforeseen events, surprises, risks and delays. The lure of enormous markets and profits in China comes entangled with various sources of risks and uncertainties, including inability to ascertain markets' true sizes, infant distribution channels, copyright violations that strike at the core of the multinationals' competitive advantages, high-regulatory risks, and corrupt business environments. (Haley 2003.) It is a country experiencing great transition and nothing should be taken for granted. Nevertheless, China is the country with the highest potential of growth in the world. (Nassimbeni & Sartor 2006.) Firms entering new markets face uncertainty, and they will try to gain knowledge about new markets to minimize this uncertainty. The desired knowledge often includes information about foreign business cultures and customs. Such knowledge reduces the uncertainty of operations and improves the performance. (Carlsson et al. 2005.)

To succeed in China, a Chinese partner plays a key role. Specifically, foreign firms making their initial entry into China's market have found it almost impossible to succeed without a Chinese partner. (Wong & Maher 1997.) Guanxi is a key concept for understanding social behaviour in China, especially the linkage between interpersonal relations and the attainment of desirable resources, and entails a strong social obligation to do favours for another person. The development of personal trust is highly important in China. Foreign firms have noticed that, and they are trying to develop relationships with business partners. (Björkman & Kock 1995.) Because of the different cultural, legal, economic, and political viewpoints involved, the relationship must be nurtured and developed over time. China's business environment is complex and risky, but in the same time it is also pliable, dynamic and developing. Foreign firms have provided capital, training, technology, specialized equipment, and know-how to China. To be successful, the foreign firm must be willing to sacrifice in the short term, forgo immediate profits, develop networks for future business, and, in the process, become a force in creating opportunities in China's market. (Wong & Maher 1997.)

The appreciation of personal relations, guanxi, is one example of Chinese values: other prevalent ones being, for instance, the search for harmony and the concept of 'face' in interaction. 'Face' refers to an individual's assessment of how others close to that individual see him/her. There is a universal need to interact in a pleasant and comfortable way; that is, to maintain one's own composure and avoid causing embarrassment either to oneself or to others. Also xinren (deep trust) is important for successful business relations in China. (Salmi 2006.)

China's business environment is different than Western firm's environment and that creates different challenges. One way to learn about Chinese markets is to be present in China and acquire knowledge of the Chinese market. According to Carlsson et al. (2005), it is likely that a long experience of foreign operations, and experience of operations in many different countries, will enhance the firm's ability to learn about a new market. Hence, experience from foreign operations in general will presumably facilitate learning about the Chinese market. It is also useful if the company has experience of markets similar to China.

Competition in China's market has grown explosively, and foreign brands and local brands compete for market share. Quality is the most important competitive factor, and foreign firms must continue to develop their image by building product portfolios of brands and new products that satisfy the Chinese consumer's taste for quality items. China's economy has quadrupled since 1980, and significant numbers of its consumers have become more sophisticated. They are especially hungry for luxury and personal-care goods, both of which lend themselves to the efficacy of brand names. As marketing becomes increasingly important in China, the use of brand names becomes more rewarding. (Wong & Maher 1997.)

According to Björkman & Kock (1995), the most effective way to gain access to social networks in China is to have an own unit, when comparing to the strategy of getting the access to social networks through other actors. An own unit in China is either the form of a foreign investment enterprise or a representative/liaison office, and it is helping the company to get direct access to social relationships that would transmit valuable business information. It is good to employ Chinese persons from the industry, because in that way they can create guanxi with buyers and/or governmental organizations. These Chinese employees occupy central position and they have quite strong ties with centrally placed actors in industry. By transferring the responsibility for networking and marketing in general to the domestic Chinese employees, firms can create stronger relationships with locals, because Chinese employees often already have some access to social relationships and they are speaking Mandarin. Some Chinese

employees may also have family or party relations which could be helpful in their work. According to Björkman & Kock (1995), local presence within China brings with it an improved possibility to access directly the social networks that are of utmost importance both in obtaining information about potential business deals and in persuading the decision makers about the advantages in buying the product from local company. The direct access to the social networks is mostly handled by local employees. However, the growing problem for foreign companies is to find domestic employees who take with them their own social network contacts.

According to Salmi (2006), a Western company, whether European or American, that builds relations with Chinese suppliers, encounters a geographical and a psychic distance. Geographical (physical) distance has not been seen as a major problem, but the psychic distance is more difficult to manage. There are two different ways to manage psychic distance; either the company uses a trustworthy partner familiar with Chinese business culture (intermediaries, an agent) or the company itself invests in building and nurturing long-term business relations. The way for Western companies to ensure and increase commitment from the Chinese side is to build up personal relations. Interpersonal relations may reduce the psychic distance between companies. Personal relations are also important for overcoming barriers in communication. For example, poor or insufficient product quality is not necessarily due to a lack of will, but may be the result of an inadequate understanding of the needs of the customer. Personal relations also open doors for discussing difficult issues and problems and for approaching people at different levels of a Chinese organisation. Regular visits to the country help to create a friendly and cooperative atmosphere, which in turn facilitates the exchange of information, the building of mutual trust and the efficient management of quality control and other supervisory activities. The tighter the links to Chinese partners, the more explicitly relations can be managed, and, as a result, cultural and psychic distances are also reduced.

2.5 Supply chain

In today's global, competitive and dynamic market conditions, individual firms no longer compete as independent entities with unique brand names, but rather as integral part of supply chain links (Min & Zhou 2002, Tarantilis 2008). The effective collaboration of partners and coordination of all activities within the supply chain is prerequisite. Caddy & Helou (2007) defines supply chain a sequence of suppliers, warehouses, operations, and retail outlets. Normally, several independent firms are involved in manufacturing a product and placing it in the hands of the end user in a supply chain – raw material and component producers, product assemblers, wholesalers, and retailer merchants are all members of a supply chain. Supply chain is the network of organizations that are involved in, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer. In other words, a supply chain consists of multiple firms, both upstream (i.e., supply) and downstream (i.e., distribution). (Mentzer 2001.) According to Min & Zhou (2002), the ultimate success of a firm will depend on its managerial ability to integrate and coordinate the intricate network of business relationships among supply chain members. The main objective of supply chain is to enhance the operational efficiency, profitability and competitive position of a firm and its supply chain partners.

Global competitive environment is putting companies in tough situations. Technology is developing rapidly and customers have high expectations; enterprises find it is hard to

win the competition only depending on one's own capacity. In this situation, the establishment of the supply chain partnership among enterprises and the coordination of the partners are highly valued. (Su et al. 2008.) One of the most significant paradigm shifts of modern business management is that individual businesses no longer compete as solely autonomous entities, but rather as supply chains. Business management has entered the era of internetwork competition. Supply chains are competing against supply chains. In this emerging competitive environment, the ultimate success of the single business will depend on management's ability to integrate the company's intricate network of business relationships. (Mentzer 2001.) According to Min & Zhou (2002), a supply chain is referred to as an integrated system which synchronizes a series of inter-related business processes in order to: acquire raw materials and parts, transform these raw materials and parts into finished products, add value to these products, distribute and promote these products to either retailers or customers, and facilitate information exchange among various business entities (e.g. suppliers, manufacturers, distributors, third-party logistics providers, and retailers).

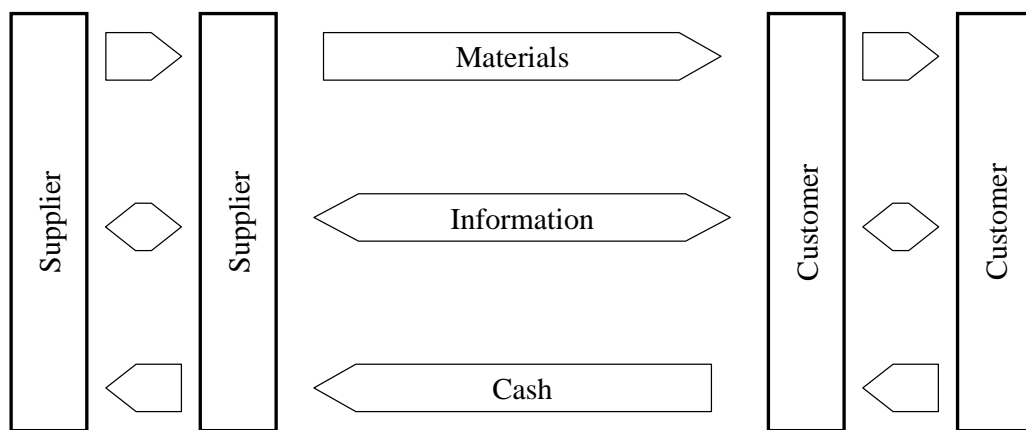


Fig. 5. Supply chain (Clerminston Consulting Pty Ltd. 2004)

It is important to identify all partners of the supply chain when structuring a supply chain network. The key is to identify the type of the partners who are critical to the value-added activities and determine a manageable number of the supply chain partners given resources. (Min & Zhou 2002.) According to Caddy & Helou (2007), companies should prefer simpler supply chains in case of complex ones. Organisations should also manage their supply chains on the basis of their activity, devoting more management resources to highly active ones as compared to less active ones. It is also easier to understand supply chains when these systems are decomposed to into smaller and more easily understood sub-systems. Organisations need to accept the fact that supply chains are dynamic rather than static, and so need to focus the attention of managers at all levels on the types of changes required, and the resource implications that these changes will have on the operation of the supply chain. Regular review and change of management practice will also be necessary in order to maintain supply chain effectiveness.

Material management supports the complete cycle of material flow from the purchase and internal control of production materials to the planning and control of work-in-process, to the warehousing, shipping and distribution of finished products. On the other hand, physical distribution encompasses all outbound logistics activities related to providing customer service. These activities include order receipt and processing,

inventory deployment, storage and handling, outbound transportation, consolidation, pricing, promotional support, returned product handling, and life-cycle support. Combining the activities of material management and physical distribution, a supply chain does not merely represent a linear chain of one-on-one business relationships, but a web of multiple business networks and relationships. Along a supply chain, there may be multiple stakeholders comprised of various suppliers, manufacturers, distributors, third-party logistics providers, retailers, and customers. (Min & Zhou 2002.)

The following figure (Fig. 6) illustrates the relationship between different supply chain items. They are all linked together to create the business chain.

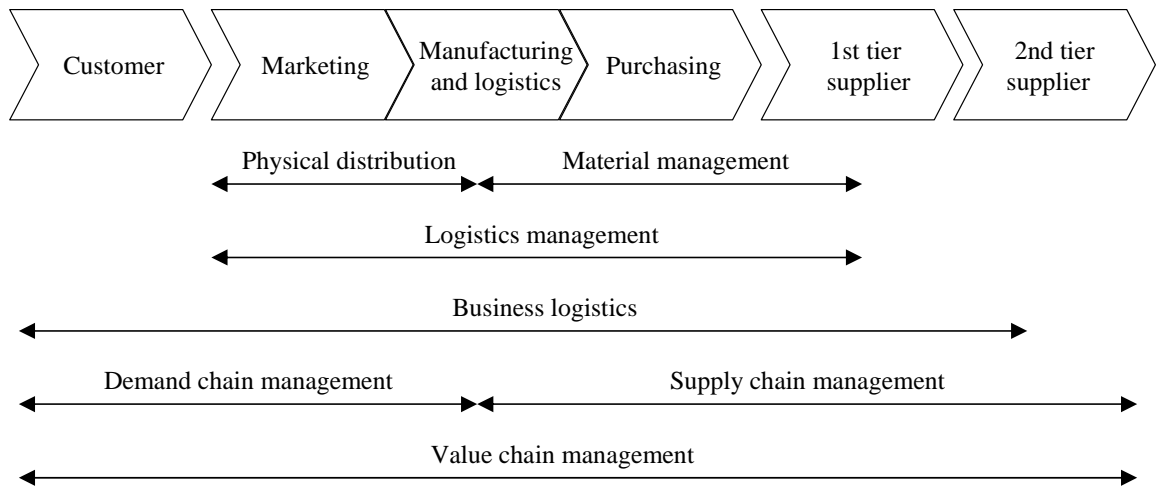


Fig. 6. The business chain. (Van Weele 2005)

Ketchen et al. (2008) introduced the concept of the best value supply chains. Best value supply chains focus on the total value added to the customer. More specifically, best value supply chains target high quality performance across four competitive priorities: speed, cost, quality, and flexibility. Speed (often referred to as cycle time) is the time duration from initiation to completion of the supply process and quality refers to the relative reliability of chain activities. Supply chains' efforts to manage cost involve enhancing value by either reducing expenses or increasing customer benefits for the same cost level. Flexibility refers to a supply chain's responsiveness to changes in customers' needs. Through balancing these four metrics, best value supply chains attempt to provide the highest level of total value added and provide superior outcomes in terms of overall customer satisfaction.

2.5.1 Supply chain management

The term *supply chain management* (SCM) was first introduced by consultants in the early 1980s, and has been popular term used widely in textbooks, professional magazines, academic journals, courses of study and individual subject offerings since then (Dubois et al. 2004, Caddy & Helou 2007). Supply chain management is the integration of key business processes from end-users through original suppliers that provide products, services, and information and add value for customers and other stakeholders (Min & Zhou 2002, Cooper et al. 1997). According to Mentzer (2001), SCM is the process of managing relationships, information, and materials flow across

enterprise borders to deliver enhanced customer service and economic value through synchronized management of the flow of physical goods and associated information from sourcing to consumption.

SCM is a successful coordination and integration of all those activities associated with moving goods from raw materials storage through to the end user, for sustainable competitive advantage. This includes activities like systems management, sourcing and procurement, production scheduling, order processing, inventory management, transportation, warehousing, and customer service. (Cooper et al. 1997.) Supply chain management is the act of optimizing all activities through the supply chain. The entire supply chain has to be managed and co-ordinated as a whole. (Manzini et al. 2008.)

The following figure (Fig. 7) represents different functions of SCM:

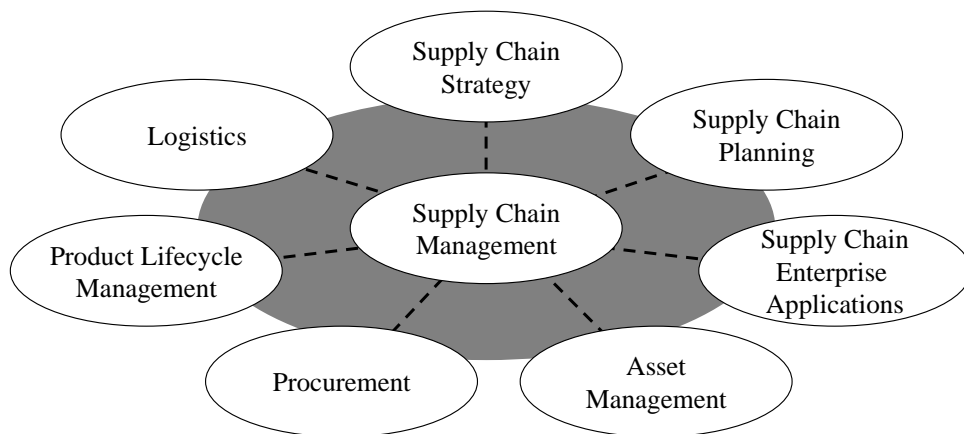


Fig. 7. Supply chain management activities (IBM 2010)

According to Min & Zhou (2002), a typical supply chain is comprised of two main business processes; material management (inbound logistics) and physical distribution (outbound logistics). In a nutshell, a concept of supply chain management is evolved around a customer-focused corporate vision, which drives changes throughout a firm's internal and external linkage and then captures the synergy of inter-functional, inter-organizational integration and coordination. The successful integration of the entire supply chain process, however, depends heavily on the availability of accurate and timely information that can be shared by all members of the supply chain.

The management of multiple relationships across the supply chain is being referred to as supply chain management (SCM). Supply chain is a network of multiple businesses and relationships which need to be managed. (Lambert & Cooper 2000.) How much of this supply chain needs to be managed depend on several factors, such as the complexity of the product, the number of available suppliers, and the availability of raw materials (Mentzer 2001).

2.5.1.1 Managing the supply chain

According to Mentzer (2001), SCM as a management philosophy, has three characteristics; a systems approach to viewing the channel as a whole, and to managing the total flows of goods inventory from the supplier to the ultimate customer, a strategic orientation toward cooperative efforts to synchronize and converge intra- and

intercompany operational and strategic capabilities into a unified whole, and a customer focus to create unique and individualized sources of customer value, leading to customer satisfaction. Supply chain management (SCM) has become the critical strategic choice for the enterprises to strengthen their competition advantages (Su et al. 2008). Supply chain management (SCM) is a major component of enterprise's strategy to enhance productivity and profitability (Oztemel & Tekez 2009).

SCM deals with total business process excellence and represents a new way of managing the business and relationships with other members of the supply chain. The motive behind the formation of supply chain arrangement is to increase channel competitiveness or competitive advantage. Implementation of SCM enhances customer value and satisfaction, which in turn leads to enhanced competitiveness of the supply chain, as well as of each member firm. This ultimately improves the profitability of the supply chain and its members. SCM is concerned with improving both efficiency (i.e. cost reduction) and effectiveness (i.e. customer service) in a strategic context (i.e. creating customer value and satisfaction through integrated channel management) to obtain competitiveness that ultimately brings profitability. (Mentzer 2001.)

2.5.1.2 Cooperation in supply chain

The scope of the supply chain can be defined in terms of the number of firms involved in the supply chain and the activities and functions involved. The original scope of the supply chain has been across firms, although some firms start by integrating within their organizations before expanding to other firms. Early writers stated that SCM covers the flow of goods from supplier through manufacturing and distribution chains to the end user. While some authors have addressed the entire supply chain, others have focused on parts of it, across or within firms. Specific functions tend to focus on their connection with other firms. (Cooper et al. 1997.)

To implement SCM, some level of coordination across organizational boundaries is needed (Cooper et al. 1997). Cooperation refers to similar or complementary coordinated activities performed by firms in a business relationship to produce superior mutual outcomes or singular outcomes that are mutually expected over time (Mentzer 2001). This includes integration of processes and functions within organizations and across the supply chain. Organizational relationships tie firms to each other and may tie their success to the chain as a whole. All firms participate in a supply chain from the raw materials to the ultimate consumer. The closeness of the relationship at different points in the supply chain will differ. More partnership characteristics will probably be exhibited with key suppliers or customers. Critical components may need closer management further up the channel to avoid shutting down production lines. A second supplier may be recommended to maintain a source of supply for production. Sharing information with competitors then becomes an issue. (Cooper et al. 1997)

Effectively integrating the participants in a supply chain is crucial to supply chain success. There are two basic ways to organize associations with other supply chain participants. Cooperation refers to contractual relationships, such as outsourcing or subcontracting. Such relations are highly structured, often complex, and can require extensive negotiation. In contrast, collaboration refers to trust-based relationships centred on a sense of shared purpose. In these links, each partner comes to view the other as an extension of itself. Collaboration is very sophisticated, requires much time and energy, and is ambiguous and learning-intensive. Within best value supply chains, executives determine the best relationship to develop between themselves and a partner based on the value each delivers. If a product or service is commodity based, or a fungible item, developing a strategic partnership does not make sense. Instead, a

transactional focus is often pursued. However, as skills become more and more specialized and unique in the marketplace, executives building a best value supply chain will look to more complex relationships to leverage the value inherent in another firm's capabilities. (Ketchen et al. 2008.)

The firms will need to choose the level of partnership appropriate for particular supply chain links. Not all links throughout the supply chain should be closely coordinated and integrated. The most appropriate relationship is the one that best fits the specific set of circumstances. Determining which parts of the supply chain deserve management attention depends on a number of factors, which must be weighed against firm capabilities and the importance to the firm. (Cooper et al. 1997.) Cooperation is not limited to the needs of the current transaction and happens at several management levels, involving cross-functional coordination across the channel members. Supply chain succeeds if all the members of the supply chain have the same goal and the same focus of serving customers. Establishing the same goal and the same focus among supply chain members is a form of policy integration. The implementation of SCM needs the integration of processes from sourcing, to manufacturing, and to distribution across the supply chain. (Mentzer 2001.)

Supply chain management seeks to bring together members of the company's supply chain in order to produce better work, higher productivity and higher level of efficiency (Oztemel & Tekez 2009). To be fully effective in today's competitive environment, firms must expand their integrated behaviour to incorporate customers and suppliers. Mutually sharing information among channel members in supply chain is required, especially for planning and monitoring processes. Supply chain members are also sharing risks. Effective SCM is made up of a series of partnerships and thus, SCM requires partners to build and maintain long-term relationships. It is not usual that all the primary activities in the value chain are performed by any one firm to maximize customer value. Thus, forming strategic alliances with channel partners such as suppliers, customers, or intermediates provides competitive advantage through creating customer value. (Mentzer 2001.)

Supply chain partners are classified into two distinctive types: primary and secondary partners. In general, the primary partners are those autonomous channel captains or strategic business units who actually perform operational and/or managerial activities designed to create a specific product or service for a particular customer or market. In contrast, supporting partners are companies that simply provide resources (e.g. assets, application software, and real-estate property), knowledge, and utility for the supply chain. These supporting partners can be transportation carriers, consulting firms, third-party logistics providers, IT service providers, on-line brokers, and educational institutions. These categories are not exclusive, however, as a firm can be both a primary and supportive partner of the supply chain, performing primary activities related to one process and supportive activities related to another process. (Min & Zhou 2002.)

SCM also may include cooperative efforts between chain members in such areas as marketing research, promotion, sales and information gathering, research and development, product design and total system/value analysis. Early supplier involvement in the product development process is important and, in some cases, second tier suppliers. Further, consumer and customer involvement is necessary. The objective of SCM is to lower the total amount of resources required to provide the necessary level of customer service to a specific segment. Overall goal is synchronizing the requirements of the customer with the flow of materials from suppliers, reducing inventory investment in the chain, increasing customer service, building competitive advantage for the supply chain and value. (Cooper et al. 1997.)

2.5.1.3 Information in supply chain

The greatest agreement among authors about the similarities in supply chain management is the need for information systems integration, as well as planning and control activities in the supply chain management (Cooper et al. 1997, Dubois et al. 2004). Incredible changes have occurred as the result of improvements in the information systems now used to manage supply chains, bringing delivery times down to days and, in some cases, hours. Overall, effective supply chain information systems provide important benefits, including cost reductions, productivity improvements, and alignment of an appropriate product/market strategy. A proactive focus is critical. It means that participants in the chain should have information about each step of the chain prior to the product's physical movement through those steps. This allows for planning, tracking, and predicting lead times based on actual data. Ideally, all participants in the supply chain are continuously provided relevant information in real time. However, the information system should also be constructed in a way that protects each firm's sensitive data from being revealed to others unless necessary. (Ketchen et al. 2008.)

2.5.1.4 Supply chain management framework

The understanding of SCM has been re-conceptualized from integrating logistics across the supply chain to the current understanding of integrating and managing key business processes across the supply chain. The conceptual framework emphasizes the interrelated nature of SCM and the need to proceed through several steps to design and successfully manage a supply chain. The SCM framework consists of three closely interrelated elements: the supply chain network structure, the supply chain business processes, and the supply chain management components. The supply chain network structure consists of the member firms and the links between these firms. Business processes are the activities that produce a specific output of value to the customer. The management components are the managerial variables by which the business processes are integrated and managed across the supply chain. (Lambert & Cooper 2000.)

Operating an integrated supply chain requires continuous information flows, which in turn help to create the best product flows. The customer remains the primary focus of the process. Achieving a good customer-focused system requires processing information both accurately and in a timely manner for quick response systems that require frequent changes in response to fluctuations in customer demand. Controlling uncertainty in customer demand, manufacturing processes, and supplier performance are critical to effective SCM. The key supply chain processes are:

- Customer relationship management
- Customer service management
- Demand management
- Order fulfilment
- Manufacturing flow management
- Procurement
- Product development and commercialization
- Returns.

These processes are shown in the following figure (Fig. 8).

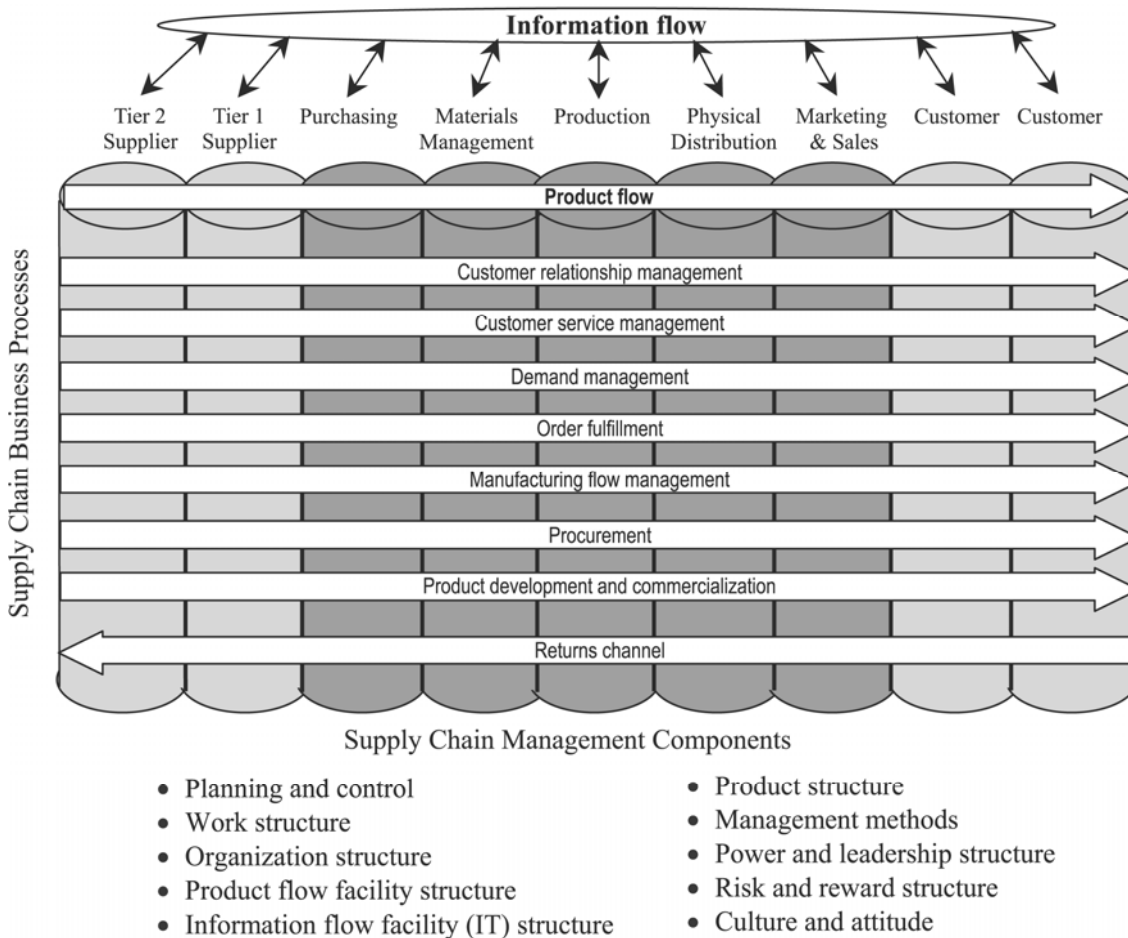


Fig. 8. A Framework of Supply Chain Management. (Lambert & Cooper 2000.)

The first step toward integrated SCM is to identify key customers or customer groups, which the organization targets as critical to its business mission. Customer service provides the single source of customer information. It becomes the key point of contact for administering the product/service agreement. Customer service provides the customer with real-time information on promised shipping dates and product availability through interfaces with the organizations' production and distribution operations. Finally, the customer service group must be able to assist the customer with product applications. (Lambert & Cooper 2000.)

The demand management process must balance the customer's requirements with the firm's supply capabilities. Part of managing demand involves attempting to determine what and when customers will purchase. A good demand management system uses point-of-sale and "key" customer data to reduce uncertainty and provide efficient flows throughout the supply chain. The key to effective SCM is meeting customer need dates. It is important to achieve high order-fill rates either on a line item or order basis. Performing the order fulfillment process effectively requires integration of the firm's manufacturing, distribution, and transportation plans. Manufacturing processes must be flexible to respond to market changes. This requires the flexibility to perform rapid changeover to accommodate mass customization. Strategic plans are developed with suppliers to support the manufacturing flow management process and development of new products. Suppliers are categorized based on several dimensions, such as their contribution and criticality to the organization. In companies where operations extend worldwide, sourcing should be managed on a global basis. Customers and suppliers must be integrated into the product development process in order to reduce time to

market. As product life cycles shorten, the right products must be developed and successfully launched in ever shorter timeframes in order to remain competitive. Managing returns as a business process offers the same opportunity to achieve a sustainable competitive advantage as does managing the supply chain from an outbound perspective. In many countries, this may be an environmental issue, but not always. Effective process management of returns enables identification of productivity improvement opportunities and breakthrough projects. (Lambert & Cooper 2000.)

2.5.1.5 Successful supply chain management

Lambert & Cooper (2000) have identified the following nine management components for successful SCM: planning and control; work structure; organization structure; product flow facility structure; information flow facility structure; management methods; power and leadership structure; risk and reward structure; and culture and attitude. Planning and control of operations are keys to moving an organization or supply chain in a desired direction. The extent of joint planning is expected to bear heavily on the success of the supply chain. Different components may be emphasized at different times during the life of the supply chain but planning transcends the phases. The control aspects can be operationalised as the best performance metrics for measuring supply chain success.

The work structure indicates how the firm performs its tasks and activities. The level of integration of processes across the supply chain is a measure of organizational structure. Organizational structure can refer to the individual firm and the supply chain; the use of cross-functional teams would suggest more of a process approach. Product flow facility structure refers to the network structure for sourcing, manufacturing, and distributing across the supply chain. Since inventory is necessary in the system, some supply chain members may keep a disproportionate amount of inventory. As it is less expensive to have unfinished or semi finished goods in inventory than finished goods, upstream members may bear more of this burden. Rationalizing the supply chain network has implications for all members. Virtually every author indicates that the information flow facility structure is the key one. The kind of information passed among channel members and the frequency of information updating has a strong influence on the efficiency of the supply chain. This may well be the first component integrated across part, or all, of the supply chain. (Lambert & Cooper 2000.)

Management methods include the corporate philosophy and management techniques. It is very difficult to integrate a top-down organization structure with a bottom up structure. The level of management involvement in day-to-day operations can differ across supply chain members. The power and leadership structure across the supply chain will affect its form. One strong channel leader will drive the direction of the chain. In most chains studied to date, there are one or two strong leaders among the firms. The exercise of power, or lack thereof, can affect the level of commitment of other channel members. The anticipation of sharing of risks and rewards across the chain affects long-term commitment of channel members. Culture and attitude are very important considerations. Compatibility of corporate culture across channel members cannot be underestimated. Meshing cultures and individuals' attitudes is time consuming, but it is necessary at some level in order for the channel to perform as a chain. Aspects of culture include how employees are valued and how they are incorporated into the management of the firm. The objective of SCM is to create the most value, not simply for the company, but for the whole supply chain network including the end customer. Consequently, supply chain process integration and reengineering should be designed to increase process efficiency and effectiveness for

the entire supply chain. It is critical that the benefits derived are equitably distributed. (Lambert & Cooper 2000.)

2.5.2 Global supply chain

Over the past several decades, a number of factors have led to the increasing globalization of the world economy, and as a result, the competitive environment faced by firms has changed dramatically. These drivers for globalization are; decreasing tariffs, improving transportation, communications and information technology, globalization of products, services and markets, global competition, and economic regionalism. Also technological improvements in transportation, communications, and information processing have made global production increasingly viable and have also contributed to the development of global markets. These changes have enabled global competitors to make products and services available to consumers worldwide, and the results have been a proliferation of choices for consumers and a need for firms to offer greater product and service quality at lower cost in order to remain competitive. These pressures have led to increased emphasis on reengineering internal business processes and working more collaboratively with customers and suppliers to better integrate planning and operations throughout the supply chain as a means to reduce costs and improve service. (Mentzer 2001.)

Nowadays supply chain management is not just a domestic phenomenon; supply chains transcend national boundaries, imposing the challenges of globalization on managers who design supply chains for existing and new product lines (Meixell & Gargeya 2005). The emergence of the global marketplace necessitates that supply chain management must be refocused into a global context. The globalisation process is viewed as a network of contemporaneous events, options, and constraints, which requires the development of a systemic concept of supply chain strategy development and implementation. (Harvey & Richey 2001.) According to Manzini et al. (2008), in the modern competitive business environment, the design and management of supply chains is one of the most important and critical problems facing managers of multinational companies operating worldwide. This is especially true for those multinational companies which operate worldwide in strongly changing operating conditions, where flexibility, i.e., the ability to adapt to changes occurring in the system environment, is the most important strategic issue affecting company success.

Changes in technology and globalization of products and services have resulted in increasingly dynamic markets and greater uncertainty in customer demand. Consumers have greater access to more goods and services, and the introduction of new products is occurring at faster rates. Product lifecycle is also getting shorter and shorter. Firm's competitive position depends on its ability to understand changes in consumer demands and respond appropriately with goods and services that will meet those demands. Supply chain management tools and techniques are seen as mechanism that will allow a firm to respond to these environmental changes. By working more collaboratively with supply chain partners, firm can better understand changes in customer requirements and respond more quickly to those changes. As firms have searched for ways to enhance their competitive position, supply chain management concepts have emerged as increasingly important. By sharing risks across supply chain partners, firms may be able to improve their own performance in increasingly volatile and competitive global markets. (Mentzer 2001.)

Supply chain professionals have long recognized the desirability of certain system properties, such as flexibility, for attaining potential competitive advantage in this

rapidly changing environment. Similarly, in the supply chain literature, flexibility is seen as a reaction to environmental uncertainty. Flexibility is a key dimension of competitive strategy. Giunipero et al. (2005) defined five major types of supply chain flexibility; 1) product, 2) volume, 3) launch, 4) access, and 5) responsiveness. Product flexibility is defined as the ability to handle difficult, nonstandard orders, to meet special customer specifications, and to produce products characterized by numerous features, options, sizes, and colours. Product flexibility is a value-adding attribute that is immediately visible to the customer. Volume flexibility is the ability to effectively increase or decrease aggregate production in response to customer demand. Launch flexibility is the ability to rapidly introduce many new products and product varieties that requires the integration of numerous value activities across the entire supply chain. Access flexibility is the ability to provide widespread or intensive distribution coverage and responsiveness flexibility captures the overall ability of the firm to respond to the needs of its target markets.

2.5.2.1 Managing global supply chain

Mentzer (2001) wrote in his book, that supply chain management is seen as a mechanism to maintain competitive position in domestic markets, in light of increasing global competition. At the same time, firms increasingly respond to global competitive pressures by becoming more global themselves – looking to foreign markets for growth opportunities or to foreign suppliers for raw materials. As firms respond to global competition by becoming more global themselves, the challenges and benefits associated with supply chain management become increasingly complex. Firms operating in the global environment will become increasingly dependent on their ability to manage global supply chains effectively.

Configuration of supply chain systems and processes may be critical to the capability of a firm to achieve the strategic objectives of globalization. The key strategic consideration for supply chain managers is fit with corporate strategy. To contribute to a firm's competitive advantage, supply chain processes and infrastructure must be aligned with and supportive of the firm's globalization strategies. Whether the firm's globalization strategies are aimed at global efficiency through economies of scope and scale, managing risk, transfer of knowledge, or a combination of these three, the ability of supply chain activities to assist in achieving these objectives is critical. (Mentzer 2001.)

Differences in corporate strategy require different strategies and objectives for supply chain management. The pursuit of global efficiency requires both a global approach to planning and appropriate information technology to allow global coordination and visibility. Global learning and technology transfer to take advantage of innovation world-wide require the structuring of work flows and organizational interfaces to allow the transfer of knowledge across borders. The need to balance local responsiveness and global efficiency requires a great deal of collaboration among organizations in multiple countries. Managers must understand the differences in strategic requirements and must develop supply chain approaches consistent with the firm's overall objectives. (Mentzer 2001.)

The following figure (Fig. 9) represents different global supply chain management phases:

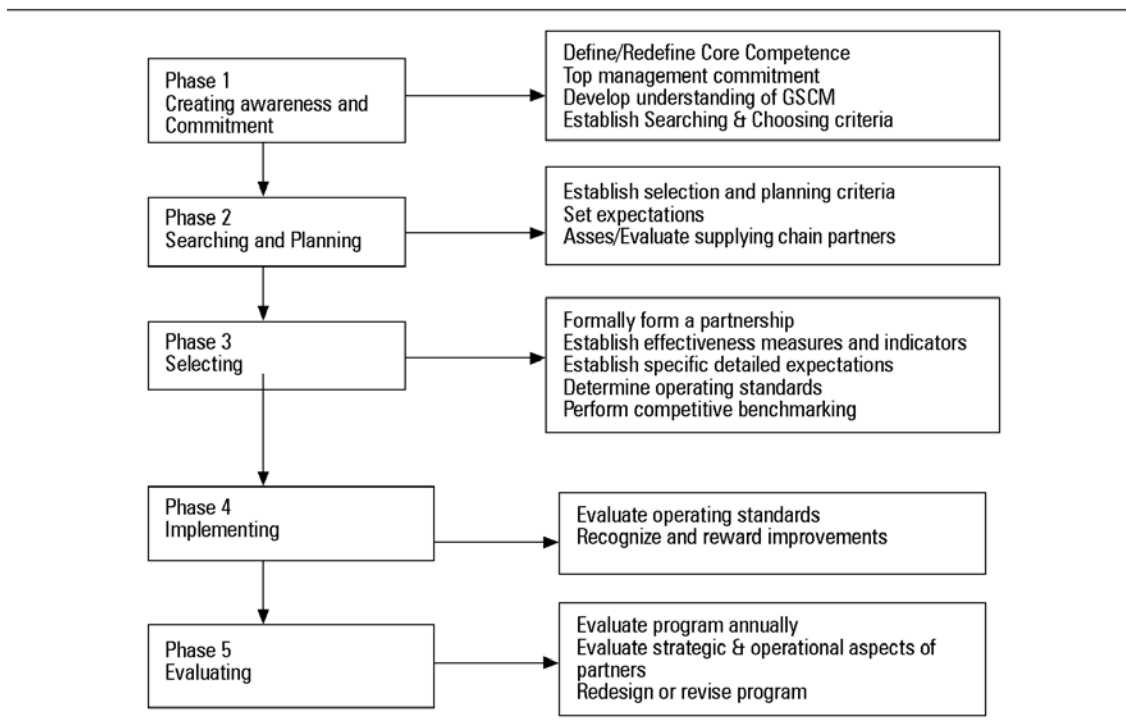


Fig. 9. Model of Global Supply Chain Management. (Motwani et al. 1998)

Supply chain managers must understand the firm's globalization objectives and strategies to effectively design supply chain processes in support of those strategies. Supply chain strategies, structure, and processes must address issues of strategic importance to the firm, such as the ability to gain efficiency through economies of scope or scale, to share technology and innovations, to balance local responsiveness and global efficiency, and to manage risks inherent in the global environment. The environmental risks faced by the firm must be understood, and the appropriate environmental scanning mechanism and operating flexibility must be developed to anticipate and respond to changes in the global operating environment. A firm's ability to anticipate or sense significant changes in economic, legal or political conditions, and to reconfigure supply chain operations in response to such changes, can be an important source of competitive advantage. Managers must also develop appropriate information technology to support global supply chain strategies. Such systems must provide the capability to manage global transactions as well as to access and utilize data and information about global operations. (Mentzer 2001.)

Supplier selection is important part of the global supply chain management design. According to Meixell & Gargeya (2005), suppliers are typically selected based on the buyer's perception of the supplier's ability to meet quality, quantity, delivery, and price and service needs of the firm. In some cases, purchasing managers consider an even broader set of criteria as defined by the total cost of ownership to include the cost of carrying inventory, repair, training, disposal, etc. Factors that may influence on managers decisions are, for example, order quantities, geographic preferences, and limitations on supplier capacities.

The most comprehensive strategic problem is the optimization of the complete supply chain. The strategic design of a supply chain requires managers to determine: the number, location, capacity, and type of manufacturing plants and warehouses to use; the set of suppliers to select; the transportation channels to use; the amount of raw materials

and products to produce and ship among suppliers, plants, warehouses, and customers; and the amount of raw materials, intermediate products, and finished goods to hold at various locations in inventory. (Vidal & Goetschalckx 1997.) Also the integration of decisions across the supply chain influences global supply chain design. Integrating business processes is a best practice in supply chain management that involves coordinating decisions across multiple facilities and tiers. An integrated, well-coordinated global supply chain is difficult to duplicate and so plays an important role in competitive strategy. (Meixell & Gargeya 2005.)

2.5.2.2 Complexities in global supply chain

Given the complexity and uncertainty inherent in the global environment, management of risk is an issue that must be addressed by any firm doing business globally. Environmental scanning to monitor changes in the macroeconomic or political environment, along with operating flexibility that allows a firm to respond to those changes, is critical to a firm's ability to manage risk. Changes in country's economic situation, which may affect currency exchange rates, wage rates, and/or interest rates, may require changes in a firm's operations. Changes in government policy may bring about changes in tax or duty structures, legal or local content requirements, or technical standards that require changes in a firm's products or operations. Having the flexibility to reconfigure sourcing and production flows in response to those changes – and thus to minimize the risk of operating globally – depends on the firm's supply chain management strategies and processes. (Mentzer 2001.)

Another element of risk is introduced by the asymmetry of political, economic, and cultural environments. To manage the competitive and resource risk effectively, managers must understand and plan for the influence of political, environmental, and cultural differences in competitor responses and resource capabilities. Managers need to understand risk factors and cultural differences across countries and ensure that supply chain professionals have the knowledge and capabilities required to select appropriate relationships with those partners. (Mentzer 2001.)

Most discussions about the differences between doing business on a global versus a domestic basis highlight the increased complexity and uncertainty associated with the global environment. The complexity is a reflection of the fact that political, economic, and cultural factors differ across countries, resulting in a complex set of variables to be considered when operating across multiple countries. This global diversity is reflected in differences in government regulations and legal requirements, different states of economic and infrastructure development, differences in consumer demands, and differences in the social and business processes among different countries. The ability of firms to manage on a global basis and monitor and respond to changes in the global environment over the past decade has increased. As a result, the ability of firms to manage on a global basis and monitor and respond to changes in the global environment is becoming more critical. In a global context, a firm's supply chain management process needs to provide the tools and techniques to understand and manage existing complexities and uncertainty, as well as to respond to rapid changes in the environment, in support of the globalization strategies of the firm. (Mentzer 2001.)

Experts maintain that global supply chains are more difficult to manage than domestic supply chains. Substantial geographical distances in these global situations not only increase transportation costs, but complicate decisions because of inventory cost tradeoffs due to increased lead-time in the supply chain. Meixell & Gargeya (2005) stated that, different local cultures, languages, and practices diminish the effectiveness of business processes such as demand forecasting and material planning. Similarly,

infrastructural deficiencies in developing countries in transportation and telecommunications, as well as inadequate worker skills, supplier availability, supplier quality, equipment and technology provide challenges normally not experienced in developed countries. These difficulties inhibit the degree to which a global supply chain provides a competitive advantage.

Global supply chains carry unique risks that influence performance, including variability and uncertainty in currency exchange rates, economic and political instability, and changes in the regulatory environment. Currency exchange rates affect the price paid for goods that are purchased in the supplier's currency and so influence the timing and volume of purchases as well as the financial performance of the supply chain. Accordingly, practitioners are well advised to factor these risks into their decisions when designing global supply chains. (Meixell & Gargeya 2005.)

2.5.3 Global purchasing in supply chain context

Managing the purchasing task in the supply chain has been a challenge in the last decade for many corporations (Karpak et al. 2001). In an increasingly competitive business world, global competition puts high demand on the flexibility of industrial companies. As a result of worldwide competition, firms are combining domestic and international sourcing as a means of achieving a sustainable competitive advantage. Organizations have realized that a world-class global supply base is required in order to meet world-class competition. The catalyst for global sourcing has been the worldwide competitive pressure forcing firms to reduce costs and to improve quality and responsiveness. (Gelderman & Semeijn 2006.) The need to gain a global competitive edge on the supply side has increased substantially. Particularly for companies who spend a high percentage of their sales revenue on parts and material supplies, and whose material costs represent a larger portion of total costs, savings from supplies are of particular importance. Moreover, the emphasis on quality and timely delivery in today's globally competitive marketplace adds a new level of complexity to outsourcing and supplier selection decisions. Many companies attempt to streamline the number of suppliers from which they purchase. (Karpak et al. 2001.) Purchasing is the key intermediary between members of the supply chain. It is essential that purchasing serve an integral, if not a primary role, in the management of the supply chain. (Carr & Smeltzer 1999.)

The following figure (Fig. 10) illustrates the main activities within the purchasing function and the purchasing process model. It shows that these activities are closely interrelated.

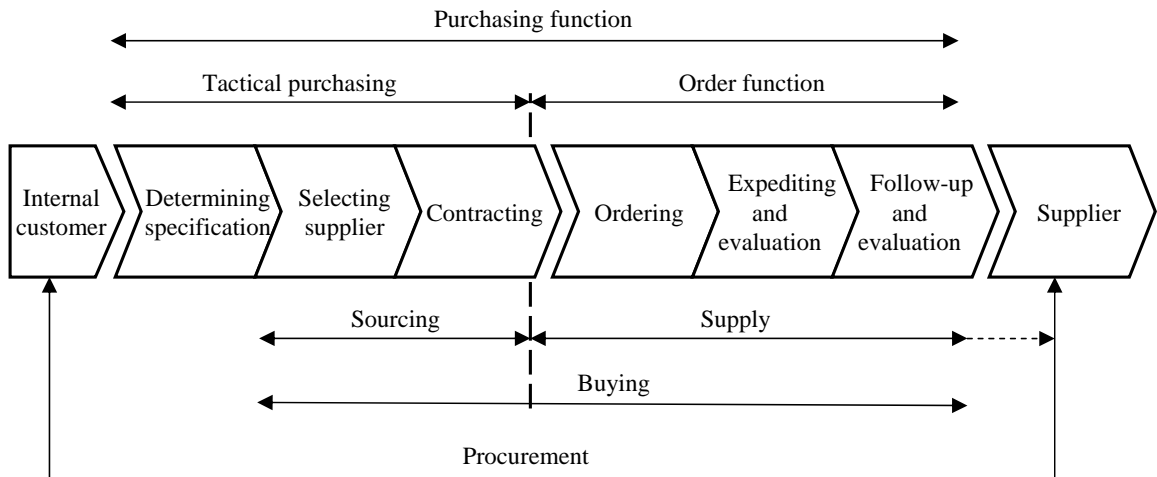


Fig. 10. Purchasing process model. (Van Weele 2005.)

2.5.3.1 Purchasing as a part of the company's strategy

According to Quintens et al. (2006), in many of today's globalizing industries, purchasing is one of the strategic functions with the highest potential impact on a firm's long-term profitability. Global purchasing has become a critical strategic decision for companies competing on a global basis (Gelderman & Semeijn 2006, Giunipero et al. 2005). The role of purchasing has changed from an administrative to a more strategic function in companies and its scope has increased from buying operations to supply management. Today, purchasing strategies emphasise not only price, but also the quality of products, cost efficiency, and co-operative relationships. (Salmi 2006.) Suppliers are applying global strategies, which forces purchasing managers to increasingly coordinate and centralize their purchasing strategies in order not to weaken their bargaining power. Global purchasing strategy may be very important factor in creating competitive advantage. Furthermore, close coordination with other strategic activities (e.g., R&D, manufacturing and marketing) is needed. (Quintens et al. 2006, Gelderman & Semeijn 2006.)

Company should integrate entrepreneurship, innovation and organizational learning to create sustainable competitive advantage in global purchasing. Lack of knowledge of culture, business practices and foreign markets, limited availability of resources for market research and foreign supplier selection hamper to a certain extent the execution and implementation of global purchasing activities. In a dynamic process, a firm will define the most appropriate—i.e., profit- and growth-generating—global purchasing strategy, given its current stock of purchase-related resources and capabilities. A global purchasing strategy is considered as a firm's functional answer to organizational and external purchase-related challenges and opportunities, while building upon particular stocks of purchase-related resources and capabilities. Together, they leverage to functional and firm performance. (Quintens et al. 2006.)

According to Carr & Smeltzer (1999), purchasing has an impact to strategic planning and it has increased in a number of firms. Carr & Smeltzer's (1999) study's one of the main conclusions was that there is a positive relationship between supplier communication and strategic purchasing. It is important to move away from adversarial relationships to more cooperative relationships between buying and supplying firms. It was also interesting finding, that the firms that have strategic purchasing also have

higher levels of cooperation with their suppliers. Supplier responsiveness and strategic purchasing are also significantly related. Firms that have strategic purchasing are more likely to be able to impact the responsiveness of not only their first tier suppliers, but their second tier suppliers and in-bound transportation. In today's environment, the firms that get their products to market quicker have a competitive advantage. An increase in responsiveness from suppliers in the supply chain is an added advantage to these buying firms. The managerial challenge is to develop relationships with second and third tier suppliers as well as first tier suppliers.

Strategic purchasing involves planning, evaluating, implementing and controlling purchasing strategies. Increasing supply options with respect to the available pool of qualified suppliers and substitute materials requires strategic purchasing. Firms that do strategic purchasing are more likely to better manage these changes in their supplier market. The Carr & Smeltzer's (1999) research indicates that firms that do strategic planning are more successful than firms that do not have strategic planning. Strategic purchasing requires that purchasing strategies are aligned with the firm's strategies and continuously updated to match changes in the firm's strategic plans. Increasing strategic purchasing should enable the firm to increase in its overall performance.

2.5.3.2 *Managing global purchasing*

The integration and coordination of procurement requirements across business units (external interfaces) is challenging and difficult to master. The same can be said about the internal interfaces within individual business units. Close cooperation inside the firm between purchasing and other departments is needed to facilitate foreign outsourcing. To achieve maximum procurement benefit, firms often have to challenge entrenched systems and behaviours that work against collaborative efforts between and within business units. How to source globally and how to manage a global supply base (i.e. how to develop effective business relationships with suppliers who are located worldwide) have become critical competences. Managing suppliers from a wide range of countries implies operational complexity and relatively high learning cost on how to manage intercultural relationships. (Gelderman & Semeijn 2006.)

Giunipero et al. (2005) created the purchasing/supply chain management (P/SM) function which includes activities such as supplier coordination, supplier development, and supplier market research, cost analysis, sourcing strategy formulation, benchmarking, and outsourcing decisions. Giunipero et al. (2005) defined P/SM flexibility skills as the degree to which purchasers act entrepreneurially in managing risk, making decisions, planning, using interpersonal communication, applying influence and persuasion, being internally motivated to find creative solutions to business problems. P/SM flexibility skill set is an important dimension of overall supply chain flexibility and an addition to those previously researched such as volume and product flexibility.

In the last decade, many companies have changed their focus from short term transactional purchasing concept to supply chain management approach where they concentrated on developing long-term relations with suppliers including forming partnerships that resulted in improved coordination of supplier networks (Karpak et al. 2001). Supplier relationships connect the company's internal configuration of supply to the external resources of its suppliers. Therefore, interaction in relationships and, for instance, the skills of the interacting personnel come to play a critical role in ensuring efficient supply. Indeed, attention on the supply side has shifted from product features to external issues: supply management increasingly stresses, for example, a process focus and a market focus. (Salmi 2006.) Quintens et al. (2006), conceptualized the purchasing

process, and defined four phases: (1) the investigation of purchase markets and the screening of potential suppliers, (2) the selection of supplies, (3) the negotiation and contraction, and (4) supplier evaluation and follow-up. Coordination of purchasing encompasses the creation of purchasing synergies from economies of scale, scope, process, and learning.

In global purchasing, buyer–supplier relationships take time to establish. During this process, a key issue purchasing firms must address is effective management of the supplier network, including identification of supplier selection criteria, supplier selection decisions, and monitoring of supplier performance. Supplier selection decisions determine the number and identity of vendors that should be selected as supply sources and how order quantities should be allocated among the selected vendors. Vendor selection is inherently a complex decision. The decision process involves more than one criterion, products have many attributes such as price, quality, service, and more, and members of purchasing committees bring diverse criteria to purchasing decisions that are driven by their departmental interests such as cost, reliability, and delivery. These factors are affecting to the selection complexity. (Karpak et al. 2001.)

2.5.3.3 Complexities in global purchasing

Although global sourcing is recognized as an important strategy for accessing materials and technology or for achieving strategic leverage, it appears that few firms have developed global sourcing capability. The long lead times and environmental uncertainty associated with global sourcing appear to be significant barriers to implementation. Additionally, purchasing professionals' lack of skills and capabilities required to manage across national borders appears to be a significant impediment. It is important that managers understand the potential benefits, as well as the barriers, associated with pursuing a global sourcing strategy, so that appropriate investments in skills and capabilities of people, as well as in information technology, can be made. (Mentzer 2001.)

According to Mentzer (2001), purchasing from less developed countries may cause some complexities, usually resulting from unpredictable inflation rates and exchange rates as well as the problems associated with high levels of government intervention. Although there may be a benefit from reduced cost, there are also disadvantages – such as lower levels of quality, extension of supply lines, and delivery risk – with which firms must cope. Global sourcing may be important to a firm's competitive position as a means to access raw materials, improve quality, lower cost, or access technology. Pursuing a global procurement strategy successfully requires that a firm possess a supply chain orientation and the skills to deal with the complexities and uncertainties of the global environment.

Several companies have taken high-level decisions to source a minimum proportion of the total purchasing value in low-cost countries which often means that the companies source to achieve budget goals. For these companies, the issue is not to carry out thorough make-or-buy and risk analyses in order to decide whether to outsource or not; rather it is to understand how to make the best out of low-cost-country supply chains. Characteristics of low-cost-country supply chains such as long geographic distances, increased delivery times, and decreased delivery precision may increase costs in terms of expedited freight, unfulfilled demands, extra inventory, and managerial time spent on “fire-fighting”. The long distances and delivery times reduce flexibility: to achieve the necessary flexibility, companies need to increase inventories or have a second source locally. Differences in culture, language, practices, and time zones also

diminish the effectiveness of business processes such as demand forecasting and material planning, increasing the transaction, and governance cost of material supply. Consequently, characteristics of low-cost-country supply chains may affect the performance of logistics and thereby decrease the sought-after positive effects of outsourcing, such as cost savings. To create stable and cost efficient supply chains, it is important to match the right product with the right supplier at the right location. Low-cost country implies certain characteristics of the supplier and its location and sourcing from these countries requires that companies are aware of these characteristics. (Fredriksson & Jonsson 2009.)

The Chinese sourcing market are seen to be central for understanding the processes of international sourcing. Indeed, distance is a key concept when analyzing sourcing from China. Previously distance in international purchasing was related to price and service issues and problems concerning, for example, physical distance and time. Today, geographical distance, although still present and perhaps underestimated when it comes to costs in China, is in many ways easier to bridge with the help of, for example, electronic communication and efficient logistical arrangements. Low costs were seen to be the main motivation for sourcing in China, or bridging the distance, although some respondents also pointed to the cost/quality ratio (as shown in quotations earlier). None of the respondents raised the question of how significant the cost advantage actually was from sourcing in China, although such concerns are found in the current literature. The present study, however, focuses on the inter-cultural dimension: the interaction between Finnish/Western buyers and Chinese sellers. The human element has been identified as a key factor in establishing positive buyer–supplier relations and for developing a high-performing supply base. Social contacts may reduce the cultural distance between companies by helping to establish trust and by encouraging informal adaptations between the buyer and the seller. (Salmi 2006.)

2.6 Internationalization

The world today is experiencing an unprecedented intensification of economic, cultural, political, and social interconnectedness (Jackson 2008). It is the perception of a relative absence of growth opportunities in the home market and the perception of identifiable growth opportunities in international markets that motive companies to pursue internationalization (Zhen 2007). Within the last decades, the business world has changed drastically through globalization and internationalization – creating a new and fierce business environment for companies. (Jansson & Sandberg 2008.)

Internationalization processes in emerging markets, as in international markets in general, take place in a stepwise manner. Companies commit themselves through a gradual learning process. Learning is incremental and takes place by doing. Firms learn about doing business abroad, for example, learning about the conditions in particular markets. Companies tend first to establish themselves in geographically and culturally proximate markets and increase their commitment, starting with agents, and passing through sales companies to manufacturing companies. According to the network approach to internationalization, entries into local market networks take place through establishing relationships. The international marketing and purchasing of products and know-how through a direct exporter/importer network means that a vertical network in the exporting region (e.g. a supplier's supplier network) is indirectly connected to another vertical network in the importing region (e.g. a buyer's buyer network). This large vertical network will, in turn, be embedded in other regional and national networks, such as a financial network. (Jansson & Sandberg 2008.)

New stages of internationalization are established when a firm extends its business from one major type of market to another or from one type of foreign environment to another. The main factor behind these stages is experiential knowledge, meaning that firms gradually build a knowledge base through operating in foreign markets (i.e. knowledge of local demand and supply conditions, customers, culture, political and institutional systems, etc.). They learn from past experience by transforming this experience to useful knowledge. Internationalization knowledge about how to perform international operations is an expression of a firm's current stock of knowledge in the form of its resources and capabilities. The more novel the foreign environment, the more difficult it is for the firm to apply its current stock of knowledge to that foreign market. This means that there is a gap between a firm's present internationalization knowledge and the knowledge the company has about how to do business in the specific foreign market, i.e. concerning its network experiential knowledge and institutional knowledge. (Jansson & Sandberg 2008.)

According to Clark et al. (1997), the main steps in internationalization process are; (1) no regular export activities, (2) export via independent representatives (agent), (3) establishment of an overseas sales subsidiary, and (4) establishment of a foreign production/manufacturing facility. These steps suggest that internationalization is a process of organizational learning characterized by the increasing degree of involvement of firms in specific foreign markets. Firms increase their presence in a foreign market by moving from stage 1 through stages 2 and 3 to stage 4, by accumulating market-specific knowledge. This type of knowledge is experiential and refers to knowledge of the culture, customers, business and market structure, and so forth of individual markets.

Firms begin by exporting in neighbouring markets using simple, indirect methods such as agents. As knowledge and experience are accumulated they adopt more direct and resource demanding forms of foreign market servicing, such as sales subsidiaries or production facilities. This suggests that market-specific knowledge primarily underpins the development of foreign market servicing arrangements in a country. There is therefore a direct relationship between market-specific knowledge and market commitment. In summary, the evidence suggests that understanding the process of internationalization requires an additional focus on the learning processes within the firm rather than a limited focus on the development of market-specific knowledge. (Clark et al. 1997.)

The early stage is followed by the development stage, during which business between the customer and the supplier starts to grow and resources are increasingly shared. The relationship settles in a stable long term stage with continuous business between the parties. They have now learnt to know and trust each other, and uncertainty is now perceived as being low. Distances are small and commitment high. The main aim with building relationships is to achieve an ongoing long-term relationship and reach the final stage where the relationship is extensively institutionalized, and habitual. Thus, relationships are at the core of the entry process, and they follow a similar pattern as the internationalization process as a whole. (Jansson & Sandberg 2008.)

A gradual build-up of internationalization knowledge takes place through increased network experiential knowledge. The movement through the stages of the entry process is intimately connected to the development of institutional knowledge, making it easier to develop customer relationships. As a consequence, the more relationships in a foreign country that have reached later stages, the more established and internationally experienced the firm becomes and the higher the degree of internationalization of the SME. Also, the more countries in which the SME has established relationships, the more internationally experienced the firm is said to be. (Jansson & Sandberg 2008.)

Jansson & Sandberg (2008) found that relationships and internationalization move together: the more countries in which the SME has established relationships, the more internationally experienced is the firm. They found that relationships are a critical part of entries made into emerging country markets. A surprisingly large share of the international trade is direct between customers and suppliers via the entry node the dyad. They also detected indirect relationships through distributors and agents (the entry node triad) to be vital for the SMEs. This observation demonstrates the importance of building strong business networks to be successful in a host country market.

By establishing more and more relationships abroad a firm moves further along the internationalization process, starting in the experimental export stage. The larger the number of established relationships, the larger the portion of a firm's resources and capabilities that are dedicated to international business, and the larger the proportion of resources located abroad. During the pre-relationship stage, the experience of the customers/suppliers is none or very low, uncertainty high, distances large and commitment and adaptations zero. The development of the relationships in the country market starts in the early stage, when commitments and experience increase slowly. The establishment of relationships is a mutual learning process, where the parties learn more and more about each other. Initial adaptations are made, but are still few in number. High uncertainty and high distances prevail between the parties. (Jansson & Sandberg 2008.)

Table 2 (based on Javalgi et al. 2007) summarizes the activities of internationalization:

Table 2. Internationalisation framework

Firm level resources		Management characteristics		Firm characteristics	
- Market orientation		- Global mindset		- Size	
- Entrepreneurial orientation		- International experience		- Service type	
- Service innovation capability				- Years in business	
International market entry mode choice/involvement					
Exporting	Licensing	Franchising	Joint venture	Wholly owned subs.	
Enter the market International performance					
Culture	Govt. regulations	Technology	Economic Devel.	Market structure	
Host country factors					

2.7 Summary of the theoretical framework

This chapter two has introduced the most important subjects covered in the theoretical part of the study. The keywords of this chapter are Chinese market, supply chain management and global purchasing. Now the final summary of this theoretical part will be made.

The economic growth started in early 1980s when China opened its markets and after that, many Western companies have been interested in Chinese markets. China is a world's fastest growing economy, and its economy has grown already almost 30 years (Kettunen et al. 2008). China is the third largest economy in the world after the United States and Japan, and it accounts for 7,5 % of the world's total economic activity. The Chinese market has grown very fast and it has affected its economy in many ways. The personal income levels have become higher in China, and the competition has grown. China finds it challenging to train and develop its human resources. Consumers are

more demanding and they insist high quality products. Foreign investors have become more interested in China's market, and usually expanding markets and low labour costs are the main factors why Western companies want to invest in China. Global purchasing is also important key area when doing business with Chinese. Also Finnish companies have started to pay attention to Chinese markets and in 1990's the large companies moved to China, followed by SMEs in 2000's. China has maintained its position in sixth largest trade partner of Finland, and China is also Finland's largest trade partner in Asia.

China didn't have many legislative activities before it began to open its markets to outside world, but after the private ownership business increased, it was obvious that China needed appropriate legal mechanism and it started to change its legislation. Because of its economic growth, China has started to change its legislation to meet Western companies' needs. China has changed a lot of its laws and regulations, but it still has to develop its legislation even further. Globalization has also increased the need for protection and China has ratified many IP related international treaties, and conventions. Still despite the aforementioned facts, the Chinese legal system, while markedly improved over the past five years, does not provide adequate protection to IP rights.

Chinese people work hard and they really want to succeed. Multinational companies should be aware of traditional Chinese norms and values to avoid misunderstandings and unnecessary irritation. It is important to remember that investing in China is not a risk-free and firms have to prepare for delays, risks and surprises. Guanxi is a well-known term to describe relationship with Chinese. It is good to have local partner and develop a strong, long-term relationship with that partner. Trust between these partners is highly respected. Employing a local person is a good way to start to create relationships with Chinese, because they have local knowledge, they speak local language and they may have strong ties with centrally placed actors in industry. The strongest part of this is to find local employees who have large social connections.

Supply chain links all the actors in the same chain. These actors are, for example, suppliers, manufacturers, product assemblers, wholesalers and so on. The main idea in the supply chain is to create value for the customer which needs a strong collaboration between different actors. The main objective of supply chain is to enhance the operational efficiency, profitability and competitive position of a firm and its supply chain partners. In today's competitive business environment, companies are not competing against each other; rather the supply chains are competing against supply chains. Integration of accurate and timely information in supply chain is very important and it ties all activities together.

Supply chain needs management to reach its goals. Supply chain management has become the critical strategic choice for the enterprises to strengthen their competition advantages. Effectively integrating the participants in a supply chain is crucial to supply chain success. All the members of the supply chain should have the same goal, and the same focus for creating value to the customer. Creating a strong relationship, especially with key suppliers, needs time and energy. The ultimate goal of this supply chain management is to produce better work, higher productivity, higher level of efficiency and more value for the customer. To be fully effective in today's competitive environment, firms must expand their integrated behaviour to incorporate customers and suppliers. By working more collaboratively with supply chain partners, firm can better understand changes in customer requirements and respond more quickly to those changes.

Different factors have affected to globalization and its growth. These drivers are, for example, decreasing tariffs, improving transportation, communications and information technology, globalization of products, services and markets, global competition, and

economic regionalism. Global competition has increased and now the services and products are available worldwide. Firms have to offer greater product and service quality at lower cost in order to remain competitive. Companies should work more closely with its suppliers and customers. Supply chain management has expanded to global phenomenon, and it has become quite complex. Firms operating in the global environment will become increasingly dependent on their ability to manage global supply chains effectively. The objectives and strategies of the globalization are important in the management of the global supply chain. Managers need to understand risk factors and cultural differences across countries and ensure that supply chain professionals have the knowledge and capabilities required to select appropriate relationships with those partners. In a global context, a firm's supply chain management process needs to provide the tools and techniques to understand and manage existing complexities and uncertainty, as well as to respond to rapid changes in the environment, in support of the globalization strategies of the firm.

Globalization and worldwide competition have also affected to global purchasing. By sourcing globally, firms are trying to achieve competitive advantage, reduce costs, and improve quality and responsiveness. Purchasing is a key part of the supply chain and global purchasing has become a critical strategic decision for companies competing on a global basis. How to source globally and how to manage a global supply base have become critical competences. Managing suppliers from a wide range of countries implies operational complexity and relatively high learning cost on how to manage intercultural relationships. There are still a lot of complexities in global purchasing. Long lead times, environmental uncertainty, lower levels of quality, extension of supply lines, delivery risk, cultural differences and purchasing professionals' lack of skills and capabilities required to manage globally are the biggest impediments in global purchasing. Global sourcing may be important to a firm's competitive position as a means to access raw materials, improve quality, lower cost, or access technology. Pursuing a global procurement strategy successfully requires that a firm possess a supply chain orientation and the skills to deal with the complexities and uncertainties of the global environment.

Within the last decades, the business world has changed drastically through globalization and internationalization – creating a new and fierce business environment for companies. Usually companies start with agents, and passing through sales companies to manufacturing companies. Companies try to create relationships with local firms, and they try to entry into local market network. According to Clark et al. (1997), the main steps in internationalization process are; (1) no regular export activities, (2) export via independent representatives (agent), (3) establishment of an overseas sales subsidiary, and (4) establishment of a foreign production/manufacturing facility. This proves that internationalization happens step by step, starting with agents and then establishing sales subsidiary. By establishing more and more relationships abroad a firm moves further along the internationalization process. Then it is easier for the firm to understand cultural differences and other complexities that may occur in the internationalization process. The more countries have experience of internationalization, the easier is the establishing of relationships.

3 Empirical research

This chapter introduces the research process, central steps, and the motivation. Empirical part seeks answers to three research questions and it will be based on theoretical part of the study. This chapter first introduces the empirical research process and after that the interviewed companies will be presented. Every company has own story to tell when doing business with Chinese companies. In the end the summary of the empirical part of the study will be made.

3.1 Data collection

The research process will be based on company interviews. The goal was to find five to seven SMEs from Vaasa area, who are doing business with Chinese companies. As discussed in introduction part of limitations, companies that have founded an own subsidiary to China has left outside of this study and also companies that are only exporting to China. In this paper, the focus is only on SMEs who has outsourced part of their production to China and are purchasing from China.

Template of the interview questions (Appendix 1) has four parts: in the first part the basic information of company is asked. The goal of the second part is to find out different things relating to the purchasing from China, how the cooperation with Chinese suppliers has started and why the company has chosen Chinese supplier. In the third part the focus is on supply chain management between Finnish SME and Chinese supplier. The purpose is to find out how the supply chain management process works, possible problems the companies may have had, and possible development targets for the future. In the end of the template, there are separate questions about internationalization of the companies and how they are developing it in the future.

Four companies were interviewed. Two of the companies are located in Ylihärmä, and two in Vaasa. All of the companies were purchasing products and components from China. Interviews were made in the companies premises, because it was easier to get the big picture from their way of working, their sourcing and also cooperation with Chinese. There was contact attempt to eleven companies altogether, and six of them responded positively. However, one of the companies had only made some test sourcing with another company, so it was not valid for the research, and were left out. Another company was left out as well, because they were going to Chinese markets, and founding their own factory. Interviews were really interesting, and they are essential part of the whole research.

3.2 Nomade Collection Ab

Nomade Collection Ab has a brand name Noname. Nomade is a genuine Scandinavian company that specializes in clothes that are especially adapted to fit the customers' needs when it comes to training and competing. Nomade is making custom made training- and racing clothes. The clothes are adapted to give the best possible training run, or competition. The selection includes technical garment that have been developed over a long period of time, together with the world's elite in different sports. Nomades' own designs department guarantees that customers and their company get precisely the design and personal image that they desire. Nomade is working closely with different athletes and sports clubs. Nomade is designing sports clothes for sports clubs in the area of cross-country skiing, athletics and orienteering. The clothes are designed according to customer needs. Also companies are now forming one of the customer segments. (Nomade Collection Ab 2010.)

Nomade was found in 1999 by, among others, Peter Ivars from Vaasa (FIN) and Petter Thoressen from Halden (NOR). The head office is located in Vaasa, warehouse in Mustasaari, and the sales office (Noname Brand Store) is in Tampere. Nomade has ten employees in Europe and one in China. The company's net sales in 2009 was approximately 2,8 million Euros, but they are expecting that the net sales will grow in year 2010 to 3,5 million Euros. Nomade has more than 500 sports clubs as their customers. Henrik Carlsson, Fredrik Persson and Rikard Claesson are retailers in Sweden, and one of the owners, Petter Thoressen, is taking care of reselling in Norway.

Nomade has four different customer segments; track suits and overalls, skiing, orienteering, and track and field. Nomade's warm-up and training suits are somewhat specialized for different sports and fit for active at different levels, both to the elite athlete and exercise. Many of the Nomade's jackets and trousers works well regardless of the training sport. Nomade is offering three variations of two-piece racing suits and several different hats and headgear for skiing. Several of these with digital printing and the club or the company can build up unique design with sponsor and club prints in the highest quality. Nomade offer four variants of racing shirts for orienteering. Most of these include digital printing because it is a superior technology to profile the club with great design without the expense of the shirt feature. Nomade also offers a huge selection of trousers to orienteer. More and more people discover the benefits of knee-length pants and tights and it is now not just the elite runners who use them for training and racing. An interesting innovation is the Terminator pants which also now exist with long legs. Nomade is offering a full range of products for athletics clubs. They offer both digital printed and sewed designs in tights and tops. Functional t-shirts and running tights in various lengths are also available in standard products. (Nomade Collection Ab 2010.)

3.2.1 *Nomade & China*

The interviewed person was Peter Ivars, one of the owners of Nomade. Nomade purchases complete products from China, and they have five different suppliers. These purchased products are sporting clothes which have been made according to customers' needs. All Nomade's clothes are purchased from China, so China's part of the importing is 100 percent. The company first started its internationalization by purchasing sporting clothes from Estonia in 1999. When Estonia became member of EU (European Union), the price level started to grow very quickly and it affected negatively to clothing industry. Nomade had to think other options and they considered to change the supplier.

One owner of the Nomade had his friend working in China, and he had connections to Chinese suppliers. Because of the low labour costs, material costs and Chinese employees know-how of clothing industry, Nomade decided to change the supplier from Estonia to China.

Choosing the supplier was quite easy because the person who was working in China was familiar with the culture and he had connections to clothing industry. Nomade started the collaboration with Chinese supplier in 2004. According to Ivars, it is good to have a local partner because they usually know how to do business with Chinese. He also thinks that the best way to find trustworthy supplier is by creating contacts with Chinese people. In Chinese culture, relationships are highly respected. Local people may know someone, and that person knows someone who might be important person in finding a decent supplier. Local people may have really strong ties with centrally placed actors in that specific industry. Also a good way to find a supplier is to go through different fairs and, for instance local website, (www.alibaba.com), where all the suppliers are listed. Nowadays Nomade has five suppliers in China.

The main reason why Nomade started to import from China was costs. Low labour costs and material costs are usually the main reason why companies want to do business with Chinese. Also one reason that affected to Nomade's choice was Chinese people know-how of clothing industry. China is one of the world's largest clothing manufacturers, so China has enormous clothing markets and they have all materials close. Even though the cooperation with Chinese suppliers has been success, there are still quite much complexities and problems. Chinese people are not so assertive as compared to Western people, especially Finnish, and they don't always keep their promises. Nomade is taking care of quality control itself, and like Ivars said, it would be disastrous without it. Nomade has one employee in China who is visiting once in a week in factory and he makes sure that the clothes have the right quality. The finished clothes are not leaving from the factory without quality control.

The factor which is causing most problems is delivery reliability. That is causing problems all the time. Deliveries are usually late, and then Nomade and the supplier have to decide who is paying the cost by delay. Clothes that are delivered to sports clubs goes first to Helsinki and then to customers. Those clothes are not going through Vaasa. Clothes that are delivered to retailers go first to Mustasaari where Nomade's warehouse is located, and after the quality control, further to customers. Nomade is taking care of research and development, and they are not having collaboration with supplier in that area.

The products that are going to sports clubs' are first delivered to Helsinki, where they will be distributed straight to the customers. The products going to retailers will be distributed first to Vaasa warehouse, and after that the items will be moving to customers. Production development is done rarely together, because Nomade is taking care of the whole production development itself.

Nomade has two market segments; sports clubs and retailers. Sports clubs' orders are usually easier to handle, and the order to the supplier is done via email. The delivery time is approximately two months, because of the warehouses. More complexities are including in the retailers orders. Retailers are usually sports stores and they want to sell their own warehouses first before they are willingness to order more. This causes problems to Nomade, because they should know as early as possible the retailers' orders. The order should come at least nine months before the delivery, but usually Nomade receives the order six months earlier than the hoped delivery day. Nomade is suffering from this, because the orders should be made on-time. Because there are no accurate information about the amount of orders, it is quite complex to make the orders on-time. It would also mean big risks, if the orders would be based on inaccurate

prognosis. This is the reason why the orders of the dealers are waited enough long to find out the accurate numbers. Because the orders tend to be delayed, the date of deliveries should be accurate. Aforementioned is causing problems, because dates of deliveries are rarely valid.

Several things that could develop the supply chain between Chinese suppliers were found by Nomade. Automation is one of these. It was hoped that in the future Nomade could control the manufacturing process. It would clarify how the process is going further and when the delivery is going to be late. At this moment this is not possible and usually the late delivery is informed too late. Information goes via email and Nomade doesn't have an access to suppliers' databases. It takes a lot of time and effort to maintain good relationships with suppliers but it is worth it. Nomade is planning to build up an own factory and own brand store but these are only in the planning phase.

Internationalization has been part of the company from the early beginning. The production was first established in Estonia (between years 1999-2004), and after that it was moved to China. Nomade has retailers around the Europe, but not in Scandinavia. Owners of the company are from Finland, Sweden and Norway so they are handling Scandinavian markets by themselves. Export is directed to eleven countries – the most important one is Russia. Export to Russia has improved continuously, and it is believed that it would improve also in coming years. At the moment, the share of export is 40% of the turnover, but it is expected to rise up to 55%, mainly due to Russian markets. The most important export-destinations are Russia, Norway, Sweden and France. Nomade - personnel are located in Sweden (two persons), Estonia (two persons), China (one person), and the rest in Finland. In the future, the company's aim is to increase the internationalization, and there are also plans to found their own company to China. However, present focus is directed to Russia, where the demand of the products is high, and the markets are widely expanding.

3.3 Junkkari Muovi Oy

Junkkari Muovi Oy is a talent in injection moulding and mould manufacturing with a service offering injection and reaction injection moulded plastic parts from single products to part assemblies. The specialties are reaction injection moulding in Finland from the unique Telene material as well as a double-shot injection moulding, which offers several new possibilities. The resources and knowledge of plastic technology offered to the industry, the modern raw materials as well as the wide cooperation network and support from the entire group ensure that even the most challenging projects can be run through flexibly and in a planned manner. Junkkari Muovi is part of the MSK Group. The other companies in the group are Maaseudun Kone, Junkkari Oy and Juncar Oy. (Junkkari Muovi Oy 2010.)

Junkkari Muovi is a family company and it has founded in 1950. Junkkari Muovi is located in Ylihärmä, it has approximately 100 employees and the net sales in 2009 was 14,6 Million Euros. Net sales is expected to grow in year 2010 back to the level where it was in 2008, approximately to 20,7 million Euros. Their strength in mould function is a combination of skilled own tool manufacturing and network of international co-operation network. Their modern machinery is used by skilled and experienced labour. Their own mould maintenance guarantees uninterrupted and reliable production. The tools are serviced and checked according to a preventive maintenance program.

The material selection of products manufactured with injection moulding technology is various, ranging to most technical plastics. Junkkari Muovi manufactures plastic components for the electric-, energy-, vehicle- and technology industry. Maximum

weight of components produced is about 3 000 g. For the plastic components manufactured with modern reaction injection moulding technique Junkkari Muovi uses a material called Telene. Having a very broad use range, it is particularly suited for large moulded products, e.g. in the vehicle industry. The advantages of Telene include e.g. shock-resistance, flexibility and lightness. The material offers a new kind of freedom for a designer, endures temperature changes well and the painting result is excellent. Our modern surface treatment plant ensures high quality and finishing of the product. As products are manufactured by aluminium tools, investment costs are reasonable for even smaller volumes. The Telene is a two-component, liquid material of plastic. The material is used to produce rigidity. It has high impact resistance, good thermal qualities and especially good corrosion resistance. A finished part separates from the mould due to shrinkage and therefore no mould release agents are needed. Junkkari Muovi is also offering ready-made complete solutions (assembly, gasketing, logistics, painting, testing and inspection) which bring time and cost savings for the customer. (Junkkari Muovi Oy 2010.)

3.3.1 Junkkari Muovi & China

The interviewed person was Kimmo Viitala, Project Manager of Junkkari Muovi Oy. The company has outsourced its moulding production to China and Viitala is responsible of that area. Junkkari Muovi purchases moulds from China and these are ready for the production. They are also purchasing different raw materials and so on, but mostly the focus is on moulds.

The cooperation with Chinese suppliers started because Junkkari Muovi wanted to respond to the growing competition. Competitors were purchasing cheaper from China and Junkkari Muovi needed to be cost effective as well. At the same time the volumes started to grow, so the outsourcing was the answer to the situation. Outsourcing has been very effective way to handle larger volumes and Junkkari Muovi has been able to concentrate on service, product changes and product development.

Motivation for Junkkari Muovi to start purchasing from China was based on costs, the lack of suppliers in other countries, delivery reliability, precise culture, Chinese huge efforts of their way of working and knowledge of technology. Company was participating in industry fairs in China, they were searching suitable suppliers from the internet, and in that way they found the most qualified suppliers. Nowadays Junkkari Muovi has a lot of connections to China but they have only couple of key suppliers, mostly in Shenzhen. Earlier they had purchasing activities from other countries, but nowadays all these activities are focused on China.

Junkkari Muovi has only positive experiences of cooperation with Chinese suppliers. They have long-term relationships with suppliers and the cooperation is working smoothly. Viitala thinks that it is important to visit in China and see the suppliers face to face. The most important factors when doing business with Chinese companies are quality, price and the fluency of cooperation. According to Viitala, working with Chinese is fluency, flexible and organized. Chinese are also taking care of documentation coordination and that is very effective and well organized. That is especially useful when something needs to be checked. The amount of suppliers has grown but Junkkari Muovi still has, more or less, cooperation with all its suppliers. Even though company has key suppliers, it is purchasing every now and then from other suppliers to keep the cooperation alive.

The purchasing process starts from customer's order. First Junkkari Muovi discusses with customer and finds out customer's needs. This is an impulse that needs to happen

before purchasing activities from China can start. Delivery times are usually more than five weeks, but with the most complex parts the delivery time can be eight to nine weeks. Junkkari Muovi hasn't had any problems with delivery times and the deliveries happen when they are supposed to happen. Company receives the report on weekly basis from the suppliers about the progress of manufacturing process and usually company knows when the delivery is going to happen. Information sharing is handled via email or Skype. That is the easiest and the cheapest way to communicate. It is also easier for Chinese to use email, because their written English is much better than the spoken one. Every key supplier has own contact person who is speaking English and Mandarin, and who can translate all the needed information. That person is also acting as a link to the technical personnel. Usually the English speaking person in China is a woman who has studied in University.

Junkkari Muovi is taking care of logistics and they are using both, sea transport and air transport. The way of transportation is choosing according to the weight and size. The bigger parts are transported by shipping, because it is much cheaper than flying. Logistic decisions are made by case-by-case. The cost of the transportation varies according to who is booking the transportation. Usually it is cheaper when the booker is Chinese. They are not using couriers but they are booking straight from the shipping company. This means that they also have to take care of taxes and customs. Chinese suppliers are delivering products to the harbour but after that the responsibility transfers to Junkkari Muovi.

Junkkari Muovi and its suppliers have no access to each other's databases, and the impulse to the purchasing comes from customers' order. However, Junkkari Muovi is doing collaboration with Chinese suppliers in R&D. Junkkari Muovi is sending raw materials to China for testing. After testing, Chinese suppliers are sending these test parts back to Finland with testing reports. In Finland, moulds are having another test drive before the implementation and transferring to the production.

Junkkari Muovi has specified the quality strategies for all its suppliers and how they should work to fulfil the quality requirements. Suppliers are sending different kind of quality documents to Junkkari Muovi when needed. Junkkari Muovi is taking care of quality controlling when the products are arriving to Finland. For the ready products Junkkari Muovi is doing different kind of quality measurements, for example hardness measurements. Junkkari Muovi is very satisfied to the cooperation with Chinese. They don't have any specific development areas in mind, but one suggestion would be recruiting own employee to China but that is only development proposal.

Junkkari Muovi has increased its internationalization. Earlier the purchasing was focused on European countries but nowadays the only international supplier is China. Purchasing part of the net sales is approximately 1,5-2 million Euros, and China's part of this is 400 000-500 000 Euros. Junkkari Muovi exports to China, Singapore, Europe and Brazil, but the part of exporting is marginal, only 1-2 percent of net sales. Junkkari Muovi has contract with Swedish car manufacturer, Volvo, and Junkkari Muovi is now one of the Volvo's suppliers. This will increase the export in this year and in the future, and the part of the exporting is forecasted to be 10-20 percent in year 2010. Junkkari Muovi has considered to found an own factory to China, but that is not yet topical. In the near future company is trying to increase the internationalization only as a supplier.

3.4 Delektre

Delektre designs, develops and produces products and applications for companies and organizations that are the technological leaders in their sectors. Delektre was founded in 2004 and is based in City of Vaasa, Finland. Delektre offers product development services primarily for companies that design and manufacture electrical equipment. In addition, Delektre produces and sells its own ergonomic and energy efficient products. Delektre's capability to produce new innovations has a strong background and experience. Delektre offers product development services, and Delektre's core competency is in industrial design for companies that design and manufacture electrical equipment. Delektre's unique power electronic devices will be introduced to the market during 2010. (Delektre 2010.) Delektre has one employee, Antti Backman, who is also owner of the company. Net sales is approximately 25 000 Euros.

3.4.1 Delektre & China

Backman has had one company earlier with partner, and they were already then purchasing components from China. They were producing solar energy products. The interview was mostly made based on the current company's experiences but Backman was also telling some experiences from China based on his previous company. Delektre purchases different kind of semi products, cables, parts and connectors. Purchasing part of net sales is approximately 3000 Euros and China's part of this is 500 Euros. Western firms are not offering qualified suppliers and that's why Delektre had started to find suppliers from Chinese markets. Backman has searched suppliers from the internet and has contacted the companies that he thinks would be the most qualified. Contact has happened via email. Because the amounts of orders are not so significant, Backman feels that there is no need to visit in China. Email is the best way to communicate with Chinese and they are very active in that field. Backman had many suppliers in China with his previous company but Delektre has now only one supplier. Delektre is using couriers for logistics. Couriers are taking care of taxes and customs and they are transporting products from door to door.

Delektre is now developing and producing its own products and Backman has a lot of ideas for the future. Delektre has now purchased USB-cables from China and the production is going to start in Finland. Delektre has a stockpile because it is easier to purchase larger batches at the same time. According to Backman, it is very important for Chinese to visit in China and see the supplier face-to-face. Now when there has only been one supply from this supplier, it is not yet necessary to go and visit in China but if the cooperation continues it would be the next step in the development of cooperation. According to Backman, Delektre just needs to trust that the supplier can handle its work. Quality control takes place in Finland when the components have arrived. Delektre does not have an employee in China who could take care of quality control. Delektre has just buyer-supplier relationship with its supplier and they are not doing more collaboration. The factor that causes most problems in collaboration with Chinese is communication. Chinese people are not speaking English very well and they are not so willing to take advices from another people. Quality, price and Chinese active way of working are still the biggest reasons why Delektre has chosen Chinese supplier. Chinese people are also very friendly and it is nice to collaborate with them. Backman haven't had any problems with delivery times with his earlier and current companies.

Delektre has sold its services to abroad and different countries, mostly to Universities, like Uppsala etc. Delektre is planning to export its products to Europe and Japan.

Backman is planning to increase highly the internationalization in the future and he is trying to get contacts from seminars and different projects.

3.5 Maaseudun Kone Oy

Maaseudun Kone belongs to the MSK Group. The other companies within the group are Junkkari Oy, Junkkari Muovi Oy and Juncar Oy. The revenue for MSK Group in 2009 was 81,4 Million Euros and MSK Group has 527 employees. Maaseudun Kone has founded in 1950 and they started their production in cabins for tractors in 1964. Their net sales are 55 Million Euros and they have 200 employees. As a highly specialised manufacturer of safety cabins for Valmet tractors and Ponsse cabin chassis Maaseudun Kone's production is fast and flexible. Each produced safety cabin is a unique piece which has been manufactured to fulfil the client's equipment wishes and country specific regulations. Flexible tailor made production and fast turnaround times are based on sophisticated product and production planning backed up by a constant chain of contact with the client. Tractor roll cages have over the years developed into air-conditioned, dust and sound-proof versatile safety cabins. The ergonomically designed cabins provide for a nice workplace for the driver. The company's modern cabin factory is located in Ylihärmä in the southern part of the Ostrobothnia province. (MSK 2010.)

Maaseudun Kone has been Valtra's supplier for over 40 years. Mostly Valtra has been Maaseudun Kone's only customer, but now they are also welding cabin chassis for Ponsse's agrimotors. However, Maaseudun Kone is still Valtra's only supplier in cabins. They have long-term, close relationship which has been very unique in Finland. They have worked together closely over 40 years. In cabin production, Maaseudun Kone has seven basic models and each of them has over 2000 parts. Maaseudun Kone manufactures 51 units per day. This means that in practice, million parts should every day and every 16 minutes find their right places. Readymade cabins are transported to Valtra every day. Valtra is located in Suolahti (200 kilometres from Ylihärmä), so the distance between these companies is not too long. In Valtra, readymade cabins are being assembled to tractors and daily basis Valtra is manufacturing 40 tractors. (Hernesniemi 2009.)

In year 2004 AGCO-group from United States became an owner of Valtra. AGCO is the world's third largest actor in the agrimotor markets and its net sales is approximately 6,8 Billion dollars and it has over 13 000 employees. In the first time, Valtra's owner is the expert on its fields, in production and marketing. AGCO has four tractor brands; Fendt, Massey Ferguson, Valtra and Challenger. They have altogether 3900 retailers in 140 countries. Change of the ownership has also affected to Maaseudun Kone. AGCO has observed different functions in Maaseudun Kone and they have changed their operations. Because the cabin is the most expensive part of tractor, AGCO was interested in Maaseudun Kone's production and their work. Nowadays they are doing different decisions together, much cooperation etc. Maaseudun Kone also reports to AGCO. AGCO gives new possibilities for internationalization because of its large global network. Through AGCO's global network Finnish suppliers have possibility to be a vendor of AGCO's another tractor brands. (Hernesniemi 2009.)

3.5.1 Maaseudun Kone & China

The interviewed person was Markus Näsi, Purchasing Manager of Maaseudun Kone Oy. He has been working in purchasing four years. Maaseudun Kone Oy purchases metals,

glasses, tire products, coupling gears, steering wheels, lights etc. from China. Approximately 50 percent of purchasing comes from abroad and China's part of this is 17 percent. The purchasing from China started in 2004 when Maaseudun Kone purchased first time from China through one European company who had relationships to Chinese suppliers. They have found their own suppliers by visiting in fairs, and by using different contacts. Usually someone knows someone who could be a qualified supplier. Chinese business people have some much contacts, so it is easier to search suppliers with the help of local people.

Price has been the main reason for purchasing from China. However, they have not chosen the cheapest suppliers because they also require a good quality. The cheapest one is not always the best one, and still it is much cheaper to purchase from Chinese supplier than European supplier. When choosing a supplier, price is the most tempting issue. However, the quality of operations is the crucial issue when deciding whether there is going to be cooperation or not. Maaseudun Kone has not chosen the cheapest suppliers and this is maybe the reason why there have not occurred any problems at all. They are still doing cooperation with every supplier. Changing the supplier usually takes from one to two years. It takes time and energy to develop long-term and trustworthy relationship with new supplier. This is the reason why Maaseudun Kone has chosen their suppliers very carefully in the first place. They really want to have long-term and close relationship with every supplier.

In general, Maaseudun Kone hasn't had any problems with its suppliers. The only problem was with one company who had financial problems and which led to its bankruptcy. Moulds were left in that company – new ones had to be bought. Maaseudun Kone has not any exporting activities to China, only importing. They have altogether nine suppliers in Asia. In transportation, Maaseudun Kone is using DDU Hampurg and DDU Mäntyluoto. This means that Chinese supplier pays all the costs until the product is delivered to the destination. Maaseudun Kone pays all the taxes and customs of the destination country. The central warehouses are located in Hampurg and Pori. These warehouses are being divided together with other companies and duty that it is also possible to divide costs of warehousing. When the products are delivered, Maaseudun Kone has a purchase inspection. If there occurs nonconformities in the product, next incoming delivery will go through different measurements.

Maaseudun Kone has four suppliers and three material controllers. They have production management system which is producing different kind of purchasing proposals. However, purchase orders are not transferred automatically to suppliers' database but the orders are being made manually. Maaseudun Kone is doing the orders and Chinese suppliers do not have the access to the production management database. Cooperation with Chinese is different only because of the long distance; process is the same as with Finnish or European suppliers. Maaseudun Kone is only doing orders little bit earlier to China than to European suppliers. Maaseudun Kone has two weeks stockpile for the products ordered from European countries and one month stockpile for Chinese products. Stocks are located in Hampurg and Pori.

Communication happens mainly via email. Näsi also travels regularly to China and spends two weeks there at the time. Maaseudun Kone is doing collaboration in R&D with its suppliers. Maaseudun Kone is giving specific requirements for products and defines also customer's requirements. Chinese are designing products according to these guidelines and they are making products that customer (Maaseudun Kone) wants. Planning work is done in Finland and designing in China. In the future the goal is to have closer relationship with suppliers. Both Finnish and especially Chinese respect long-term relationships. Maaseudun Kone would like to have more cooperation in R&D and they are going to put a lot of effort on that.

According to Näsi, supply chain works between Finland and China the same way as with Finnish suppliers. There haven't been any problems and the supply chain has remained the same. Maaseudun Kone has been very satisfied to its suppliers. They have chosen their suppliers very carefully and vendors' know-how is in excellent level. Chinese work moral is very high which has affected to the level of satisfaction. Chinese are also very committed and accurate, and they really respect their customers. They are willing to do more for satisfied customers. For Chinese, the most important issues are customer satisfaction and value adding. According to Näsi, they would choose all their suppliers from Asia, if the distances would be shorter. Maaseudun Kone has been very satisfied for the fluent supply chain, and they don't see any reason for changing anything crucial. One thing to approve would be the storage, because it is causing a lot of costs. Näsi thinks that suppliers should take more care of warehousing, and in that way they could share the costs of warehousing more effectively.

Maaseudun Kone has been international company for many decades. Internationalization has continuously increased. However, focus of the internationalization has been in purchasing. Its customers are Finnish companies, so that means company does not have any exporting activities of its own. The biggest importers are Germany, Estonia, Italy, Turkey (which is growing rapidly), Canada, USA, China and Taiwan. Exporting activities are divided between 17 countries. 50% of purchasing is coming from Finnish markets and the rest from abroad. Approximately 30% from export is coming from the Europe, 3% from North-America, and 17% from Turkey, China and Estonia. Nevertheless, the company has no subsidiaries and personnel in abroad. Despite the fact that the biggest customer of Maaseudun Kone is Finnish, it also has owner from US. It also affects internationalization of Maaseudun Kone, which means reporting, negotiations and other activities. In the future, the company wants to increase internationalisation. The goal is to increase purchasing from abroad, especially from China, Taiwan and Turkey. This means that number of Finnish suppliers is going to reduce.

3.6 Summary of the empirical part

The empirical research was realized by interviewing four companies. The information was gathered by contacting companies that have suppliers in China. Altogether eleven companies were contacted via email and six companies replied. The response rate was slightly more than 50%. The goal was to find five to seven companies from Vaasa region, but only four companies were interviewed. Two of those companies who replied to email were left outside of the research because they were not qualified. The other company had only purchased one test batch with the help of another company and the other one was founding a subsidiary to China. These four interviewed companies were very cooperative and they wanted to share their knowledge and experiences of Chinese suppliers.

Two of the interviewed companies, Junkkari Muovi Oy and Maaseudun Kone Oy, are part of the same concern, MSK Group Oy. They are both located in Ylihärmä. They were much larger companies than the other two, Delektre and Nomade Collection Ab. Junkkari Muovi has approximately 100 employees, Maaseudun Kone 200, Nomade Collection 11 but Delektre has only one employee, and that person who is also owner of the company. Nomade Collection and Delektre are both located in Vaasa. These companies were from different branch of industry but they have a lot of same experiences from Chinese suppliers.

Internet is the main tool to find suppliers. Each of the interviewed companies have used internet to find information of suppliers. Google is good way to find information and website www.alibaba.com where all the suppliers are listed. Also visiting in Chinese fairs is good way to find contacts and qualified suppliers. It is good to have a local contact because usually they have even more contacts. Chinese are respecting meeting face to face so it is also important, every now and then, to visit in China. The development of personal trust is highly important in China. Guanxi is highly emphasized in China and it means personal relations. Also deep trust is important for successful business relations in China. Regular visits to the country help to create a friendly and cooperative atmosphere, which in turn facilitates the exchange of information, the building of mutual trust and the efficient management of quality control and other supervisory activities. The tighter the links to Chinese partners, the more explicitly relations can be managed.

The orders are made via email. Because of the long distance, companies are usually preparing for longer delivery times and that's why they are doing the orders little bit earlier than the European orders. Email is the easiest way to communicate with suppliers. Chinese people usually write English better than speak it. Chinese suppliers are sending different reports and documents in different manufacturing phases and usually companies know when the suppliers are going to deliver the products. All the companies are doing orders manually, and supplier has not the access to company's database. Orders are not going to suppliers automatically. Logistics is usually handled through couriers or with suppliers. Supplier usually pays costs until the product is delivered to its destination. The buyer pays destination country's customs and taxes. Delivery times have been accurate in three interviewed companies but only one company has had problems with delivery times.

Purchase inspection happens in Finland when the products are delivered and companies are doing the quality control at the same time. After the inspection, products are delivered to the customers or they are moved to the production line. If a problem occurs, they are being informed to the supplier, and compensations are going to be made. Only few reclamations are being made, because Chinese products have good quality and they are properly made.

Junkkari Muovi and Maaseudun Kone are doing cooperation with suppliers in R&D. In the future they really want to focus on that even more. Also other companies may develop the cooperation with suppliers and expand it to R&D. Chinese know-how is in so high level that companies are outsourcing their design pleasingly to Chinese.

The main reasons to choose Chinese supplier are price, quality, know-how and also Chinese high working moral and their perseverance. Nowadays the competition is very hard and it is putting companies in tight situations. They should continuously decrease their costs to be cost effective. By purchasing parts, components and products from China and by outsourcing some of the production to China, the company can save a lot of costs and be more cost effective. China offers a lot of possibilities to a different kind of companies, and cheap prices are tempting the companies. Companies have transferred their operations to China and even more companies are purchasing products and components from China. Even though the distances are long, purchasing from China is still cheaper than from the Europe. China also offers a large scale of suppliers when comparing to European countries. Price is tempting, but usually companies are not choosing the cheapest supplier. Quality of actions and price are making a strong combination which is affecting mostly to the choosing of supplier. Good cooperation is also affecting to the satisfaction and continuous of collaboration.

In general, interviewed companies have been very satisfied to cooperation with Chinese suppliers and also to the fluency of the supply chain. Chinese were described as

faithful, friendly, precise, efficient, competent, and organized and they really respect their customers. The only problems are related language problems, because Chinese knowledge of English is not on good level, and sometimes companies have to trust to interpreter. Nomade also had problems with delivery times. Junkkari Muovi and Maaseudun Kone had the most positive experiences. They have been very satisfied with the Chinese suppliers. However, all companies are being satisfied with their suppliers, and in the future they all are going to close up the cooperation.

Internationalization is experienced really positive in all companies. Internationalization is also increased continuously, but in the future, all companies told that they are going to be even more international. Purchasing is concentrated to low price countries, like China, and companies are also willing to increase export. Internationalization is also seen as a tremendous chance for companies to expand their actions. Both Junkkari Muovi and Nomade have considered establishing their own unit to China, but it is not yet realized. However, in the future that would be one option to develop the actions of the company. From the interviewed companies, Nomade was the only one that had their own employee in the China. Junkkari Muovi has also considered this possibility. None of the companies thought that export from China would reduce, but vice-versa, all companies are going to put a lot of effort by cooperation with Chinese suppliers. Further, companies think that the numbers of suppliers are going to increase. Cooperation is also being made with R&D. Following Table 3 is summarizing supply chain activities between Finland and China. It is showing the basic actions, and factors that are affecting in different process phases.

Table 3. Supply chain management between Finland and China

Supply chain management between Finland and China	
Phase 1: Finding and choosing supplier	- Internet - Fairs - Visiting in China - Contacts
Phase 2: Contract and making the order	- Customer requirements - Order via email
Phase 3: Production and quality control	- Continuous communication - Reporting - Documents - Quality control
Phase 4: Logistics	- Shipping/flying - Courier - Delivery times
Phase 5: Purchase inspection	- Quality control - Moving to the production line/customers
Possible problems? Problems - reclamation/No problems - go to the next phase	
Phase 6: Development of supply chain management	- Cooperation in R&D - Closer relationship with suppliers - Own employee in China

4 Discussion

The main target of this research was to define the supply chain between Finland and China. The main focus was on purchasing and companies that have suppliers in China. Four companies were interviewed for the empirical part of the study. China offers a lot of possibilities and they are offering a large scale of suppliers in different fields. Interviewed companies were small and medium sized enterprises and they are purchasing products, components are raw materials from China. The goal was to find out what needs to take into account when purchasing from China and how to develop long-term and close relationship with Chinese suppliers.

4.1 Answers to the research questions

Three research questions were presented in the beginning of the study (See Table 1). The first research question concentrates on Chinese markets and possibilities to Finnish small and medium sized enterprises. The first research question is:

RQ1: What kind of possibilities Chinese markets offers to Finnish SMEs?

China is the world's second largest economy. Western companies have been very attractive of Chinese enormous markets for goods and services and China offers different kind of possibilities to Western firms. China has changed its legislation and modernized its infrastructure and production facilities. China has put a lot of effort to internationalization and to be a world's biggest economy in the future. Finnish large companies started to move to China in 1980's, but in 1990's the moving wave just had grown. Finnish SMEs followed the larger companies and they started to move to China in 2000's. China offers cheaper manufacturing costs and huge potential of the markets. Companies have opened manufacturing facilities and sales organisations to China or outsourced to the local industry part of their manufacturing processes. Also many organisations have chosen Chinese suppliers and cooperation with Chinese suppliers is a good way to start business with Chinese.

China offers a lot of possibilities to Finnish SMEs. The hard competition is putting companies to the tight situations when costs should decrease all the time and every company should be very cost effective. China attracts companies with its low prices and high know-how. Companies may find it hard to find qualified suppliers and China offers a large scale of suppliers in different fields. Many companies has also transferred their production to China because it is a lot of cheaper to produce products in China than, for example, in European countries. By purchasing products, components and raw materials from China, companies can be very cost effective. Many companies have Finnish

customers in China, so they have followed them and founded an own factory to China. In that way they are closer to their customers.

Purchasing is an easy way to start cooperation with Chinese. When doing business with Chinese companies, it is good to have knowledge of Chinese people and culture. Chinese partner also plays a key role when doing business with Chinese. It is good to have a local partner who may have contacts to Chinese suppliers. The development of personal trust is highly important in China. Foreign firms have noticed that, and they are trying to develop relationships with business partners. Fairs and internet are good way to find qualified suppliers. Chinese are respecting long-term relationships with customers and they really want to have satisfied customers. Chinese know-how is highly respected and Chinese people are very hard working, flexible, friendly and cooperative. It is easy to do collaboration with them. Even though the distance between China and Finland is quite long, it is still effective to have Chinese suppliers because of costs and quality.

The second research question is concentrated in the theoretical part of the study. The second research question is:

RQ2: How to manage supply chain and global purchasing?

Supply chain management and global purchasing are discussed in the theoretical part of the study. Supply chain management integrates key business processes that add value for customers. Supply chain management means the coordination of all activities from raw materials to the end user. These activities are, for example, purchasing, production, transport, inventory management, storage, and customer service. Supply chain management is the act of optimizing all activities through the supply chain. Supply chain management needs information management through all the partners in supply chain and also a close cooperation between these partners. Collaboration refers to trust-based relationships centred on a sense of shared purpose. Supply chain management needs planning, controlling, information sharing, power and leadership, and culture and attitude.

Nowadays the attention has moved to global supply chain management. Companies are operating worldwide which is causing challenges to management of supply chain. By collaborating more with supply chain partners, firm can better understand changes in customer requirements and respond more quickly to those changes. As firms have searched for ways to enhance their competitive position, supply chain management concepts have emerged as increasingly important. By sharing risks across supply chain partners, firms may be able to improve their own performance in increasingly volatile and competitive global markets. The need to balance local responsiveness and global efficiency requires a great deal of collaboration among organizations in multiple countries.

As a result of worldwide competition, firms are combining domestic and international purchasing as a means of achieving a sustainable competitive advantage. Organizations have realized that a world-class global supply base is required in order to meet world's growing competition. The worldwide competitive pressure is forcing firms to reduce costs and to improve quality and responsiveness. How to source globally and how to manage a global supply base have become critical competences. Managing suppliers form a wide range of countries implies operational complexity and relatively high learning cost on how to manage intercultural relationships. In the last decade, many companies have changed their focus from short term transactional purchasing concept to supply chain management approach where they concentrated on developing long-term relations with suppliers including forming partnerships that resulted in improved

coordination of supplier networks. Supplier relationships connect the company's internal configuration of supply to the external resources of its suppliers. Therefore, interaction in relationships and, for instance, the skills of the interacting personnel come to play a critical role in ensuring efficient supply.

The third and last research question is concentrating on interviewed case –companies and their experiences of cooperation with Chinese suppliers. The third research question is:

RQ3: How the case-companies have created their supply chain to China and which are the most important factors when choosing the suppliers?

Four case companies were interviewed. They are all purchasing products and/or components from China and they have cooperation with Chinese suppliers. Internet is a good way to search for qualified suppliers and by contacting companies via email. Each of the interviewed companies have used internet to find information of suppliers. Google is good way to find information and website www.alibaba.com where all the suppliers are listed. Also visiting in Chinese fairs is good way to find contacts and qualified suppliers. Chinese partner is also a good way to start collaboration because usually Chinese business people have good local connections. With the help of local partner companies can find more suppliers. Chinese markets offer a lot of possibilities. Chinese have the know-how and they offer much lower prices than European suppliers.

Usually low price is the most attractive factor when choosing the supplier. Price is tempting, but usually companies are not choosing the cheapest supplier. However, quality of actions and price are making a strong combination which is affecting mostly to the choosing of supplier. Low price but poor quality is not very tempting combination. Today's business companies have to be increasingly cost effective but not in the cost of quality. Quality is essential part of product and with poor quality companies are losing their customers. Quality is always a core issue. Good cooperation is also affecting to the satisfaction and continuous of collaboration. Chinese are faithful, friendly, precise, efficient, competent, and organized and they really respect their customers. Interviewed companies have been very satisfied to the cooperation with Chinese suppliers. In the future, the goal is to have even closer relationships with suppliers and collaborate closely, for example, in research and development.

4.2 Evaluation of the study

A great deal of attention is applied to reliability and validity in all research methods. Quality of an empirical study can be evaluated by analyzing its reliability and validity. Validity measures whether the study is actually measuring the matters it was supposed to. In research, validity has two essential parts: internal and external. A common threat to internal validity is reliability. Assuming the same initial conditions for a test assessment or process the test must provide the same result every time it is performed for it to be deemed reliable. Reliability describes how probable it is that the results of a research are true. It also describes the repeatability of the research. As in all research, consideration must be given to construct validity, internal validity, external validity, and reliability (Yin 1994.)

Construct validity refers to the degree to which inferences can legitimately be made from the operationalisations in the study to the theoretical constructs on which those operationalisations were based. Like external validity, construct validity is related to generalisation. But, where external validity involves generalizing from the study context

to other people, places or times, construct validity involves generalizing from the program or measures to the concept of the program or measures. Construct validity stands for establishment of correct operational measures for the concepts that have been studied. Three methods are represented to increase construct validity: multiple sources of evidence, a chain of evidence, and the draft case study report reviewed by key informants. (Yin 1994.) The theoretical part of the study is mainly based on academic journals. This increases the construct validity of the research. For the empirical part, four companies were interviewed during the requirement gathering process. More companies could have been interviewed to increase the construct validity. Even couple of companies more would have increased the construct validity.

Internal validity encompasses whether the results of the study are legitimate because of the way the groups were selected, data was recorded or analysis performed. For example, a study may have poor internal validity if testing was not performed the same way in treatment and control groups or if confounding variables were not accounted for in the study design or analysis. Internal validity is a crucial measure in quantitative studies, where it ensures that a researcher's experiment design closely follows the principle of cause and effect. (Trochim 2006.) Internal validity of this study is founded on the data collected during the empirical phase of the study. Altogether four companies were interviewed and information has gathered from every company. Interviewed companies were chosen according to their location, size and their collaboration with Chinese. All these companies were located in Vaasa region, they were SMEs and they were purchasing products/components from China. Interviews were made personally, questions were very basic and interviewed person was responsible of company's operations with Chinese. Same questions were asked from all of the companies. Based on these aforementioned things, it could be said that the internal value of the research is in good level.

External validity involves whether the results given by the study are transferable to other groups of interest. External validity is related to generalizing. Validity refers to the approximate truth of propositions, inferences, or conclusions. So, external validity refers to the approximate truth of conclusions the involve generalizations. Put in more pedestrian terms, external validity is the degree to which the conclusions in the study would hold for other persons in other places and at other times. (Trochim 2006.) The research could be renewable if the same interviewed questions could be asked. The interviewed questions could be asked from different companies and from different branches but the results may not be the same. Companies have different kind of experiences and they have a lot of similarities but also differences.

Reliability has to do with the quality of measurement. In research, the term reliability means "repeatability" or "consistency". A measure is considered reliable if it would give the same result over and over again (assuming that what is measured isn't changing). Reliability demonstrates the activities of a study such that the research can be repeated and the similar kind of results can be obtained. (Trochim 2006.) If the same research was done in the future, the results might change since the world is changing and markets are changing. In the future, companies may have more or less suppliers, they may have different kind of problems, or they may have closer relationship with suppliers. Also responsible persons of Chinese operations may have changed in the future and they may have different kind of story to tell.

4.3 Topics for the further research

This study is part of the CHISU-project and the goal was to define the supply chain between Finland and China. China is interesting research topic because Chinese markets offers so much possibilities and more and more companies are moving their production to China. This study will be useful for SMEs who are considering of having Chinese supplier and start collaboration with Chinese. This research brings up these things that should be considered before starting the cooperation. It also brings up what kind of challenges there will arise.

According to these, a company can develop its own way of working, but it is good to read other companies' experiences and advices. The most important motives for moving to China are related to cheaper production costs, but also huge potential of markets. In the future, the research could be widening even more. In this research, only four companies were interviewed, so in the future, there could more case-companies involved. Appropriate quantity of companies would be ten: this could give even broader picture of cooperation with Chinese, and also fluidity of supply chain. Research could also be divided between different branches, so that the focus would be in one branch at a time: in this way, companies could be compared, and research could benefit certain branch and companies inside that.

Size of the company affects also to comparability. This means that companies could be divided in different groups, either by their size or by their branches. Actions of small companies can vary a great deal from bigger ones; this makes it more complex to create comparison between companies, but also drawing the conclusions. In the future, research could concentrate also in other activities than plain purchasing: one possible could be how Finnish SME's are handling their export to China, and how it is possible to compete in tough Chinese markets, where the prices are low. In this perspective there could be examination what kind of products are selling in China and how marketing of own products could be arranged. It could also be useful to figure out, what kind of things Chinese value in Finnish suppliers, and how Chinese experience the cooperation with Finns.

Many Finnish companies have transferred their production to China, and also founded their own factory. Aim of the future research could be how Finnish companies are moving their production to China, and how this process would be happening. There could also be examination that what kinds of branches are being most successful in China. Along these subjects, simply the China itself could be interesting issue: Chinese economy has been growing steadily, and there are no stops in the horizon. Future research could be focusing on the effect of economical crisis, and how it has changed the process of markets, or has there been any affect at all.

5 Conclusions

Relationships between Finnish and Chinese companies in Chinese markets have developed step by step. Until the beginning of 1980's, Finnish companies operated mainly in the area of exporting. In the 1990's, subsidiaries of Finnish companies started to grow, and this caused that the subcontracting became more general. Furthermore, the challenge is still to find a decent local company. This requires a lot of time, energy and money. There are no lacks in the supply, but there is still a challenge to find decent partner. Suppliers are being searched from fairs and through internet. The most important factors that are affecting to the selection of suppliers are price, quality, reliability, and know-how. However, it is always good to visit to China, and inspect the factories. Chinese partners also put a lot of value to personal meetings.

It takes time to create a mutual trust. Chinese respects long-term cooperation and they are ready to make their very best just to make customers satisfied. Many different articles are stating how important it is to build relationships, *guanxi*. It is generally stated that a company cannot be successful in China without working relations. Building relationships and networking are requisite for successful business in China. However, the most important issue is to build trustworthy personal relationships with partner's representatives, but also to local authorities. It is easier to create relationships, if company has knowledge about Chinese culture and history: language skills are also crucial, and few words for the local language can make the difference.

Interviewed companies did have only few problems with Chinese. Only one company stated that they had some troubles with delivery times. Neither there were any problems with copying or bureaucracy, which usually are creating troubles in China. In general, companies were satisfied with the cooperation, and they are also willing to increase it. Companies were especially planning to have more collaboration in R&D. In the future, there will be more companies that are moving to China. When SME's in Finland hear that there have been satisfied actions in China, even more companies are willing to invest there.

Today, Finnish companies have many trustworthy connections in China. By those connections, they are able to help others, even smaller companies, to build their own network, or just get few new connections. Nowadays tough competition is putting companies in tricky position, because there should be more quality with fewer costs. China is offering a lot of possibilities, and utilizing these potentials might bring lot of benefits and success to the companies. Building relationships to China requires a lot of investment, and it may also contain risks. However, cooperation in Asia can be very developing, teaching and it may also give a lot of intellectual capital as well.

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Appendix 1

The template of the interview questions

1. Basic information of interviewed company

- When the company has founded
- Location
- Branch of industry and products
- Net sales
- Personnel
- Interviewed person's position and history in the company

2. Purchasing from China

- what company is purchasing
 - complete products/components/raw materials..
- how much company is purchasing
 - how big amount of all purchasing comes from abroad and what is China's part of this
 - statistics of exporting/importing
- when the purchasing has started
 - the first steps when purchasing from China (finding a supplier, contacts...)
- why company chose China and how company benefits from China more than from another countries
 - lack of suppliers, price, quality, other reasons...
- possible problems
 - bureaucracy
 - IPR questions

- is there any differences in contracts between Chinese suppliers and suppliers in other countries
- does company have any other activities to China/from China (exporting, subsidiaries...)

3. Supply chain management

- actors
 - one Chinese supplier or many Chinese suppliers
 - transportation
 - other actors, like external warehouses
- company's position in supply chain
 - manufacturer, retailer...
 - what happens to products/components/raw materials when they are arriving from China
- company's own purchasing
 - who is responsible
 - what is acting as an impulse for purchasing
 - defining of quantities that have to be ordered (stockpiles...)
- supplier's role
 - are suppliers making purchasing suggestions, for example by following customer's warehouses
 - is supplier factory, wholesaler..
- collaboration with Chinese supplier
 - sharing of information (access to databases)
 - cooperation in R&D
 - is the aim to achieve closer relationship with suppliers or is the cooperation basic buyer-supplier relationship
- supply chain (communication, payments, logistics...)
 - how the supply chain works from company's point of view
 - changes in supply chain
 - possible problems in supply chain
- choosing the supplier
 - which are the most important factors (quality, price, ethical questions...)
 - who is responsible of selection of suppliers
- satisfaction
 - delivery times
 - quality and its controlling
 - other things that has affected to satisfaction
- development of supply chain
 - development tools

4. Internationalization

- since when the company has had internationalization actions
 - o how the internationalization has changed (increased/decreased/remain stable)
 - o has the company used distributors or representatives in their exporting
- company's importing/exporting activities to other countries than China
 - o other important countries
- exporting part of the net sales
- does the company have any other international actions
 - o subsidiaries and employees in abroad
 - o other international actions (foreign owners ...)
- internationalization in the future
 - o is the aim to increase/decrease internationalization
 - o what kind of methods the company has for the increase of the internationalization



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