

CHALMERS



Textile Sourcing Development in Increasingly Expensive China An Investigation of Future Sourcing Strategies at IKEA

Master of Science Thesis

KATARINA LINDH
KLARA SÖDERGREN

Department of Technology Management and Economics
Division of Industrial Engineering and Management
CHALMERS UNIVERSITY OF TECHNOLOGY
Göteborg, Sweden, 2012
Report No. E 2012:067

MASTER'S THESIS E 2012:067

Textile Sourcing Development in Increasingly Expensive China

An Investigation of Future Sourcing Strategies at IKEA

KATARINA LINDH
KLARA SÖDERGREN

Tutor, Chalmers: Jonas Hjerpe
Tutor, company: Joakim Hammar

Department of Technology Management and Economics
Division of Industrial Engineering and Management
CHALMERS UNIVERSITY OF TECHNOLOGY
Göteborg, Sweden 2012

Textile Sourcing Development in Increasingly Expensive China
Lindh & Södergren

© Lindh & Södergren, 2012

Master's Thesis E 2012: 067

Department of Technology Management and Economics
Division of Industrial Engineering and Management
Chalmers University of Technology
SE-412 96 Göteborg, Sweden
Telephone: + 46 (0)31-772 1000

Chalmers Reproservice
Göteborg, Sweden 2012

Writers' words

The theme of this thesis was identified since we both have a strong interest for strategic sourcing questions and a willingness to learn more within the field. When we were offered to write the Master's Thesis at IKEA Trading office in Shanghai regarding the future textile sourcing in China, we were delighted to accept the opportunity. It is difficult for management in large firms to find the time and resources for investigating new out of the box ideas. Investigating the opportunities in Xinjiang, a region in West of China, was one of these ideas and by inviting two students for six months a win-win situation was created. IKEA benefited from having "fresh minds" reviewing their textile sourcing business and exploring the innovative idea of producing textiles in Xinjiang. Throughout the project, our outsider questions sometimes brought up discussions that influenced the regular business at the trading office as well. We, as students, got the opportunity to get practical experience from a large global company and got insight in how firms actually work with the strategic questions that we learn about in the academic world. Furthermore, we got the possibility to gain deep knowledge about the textile industry and Chinese business culture, which was very exciting. Both of us early on had a passion for working internationally, and this incredible opportunity of working in China and travel to the exotic Xinjiang has enhanced the interest further. Global sourcing is a topic of great interest and we are both hoping to continue working within this field after graduation.

From cotton farmers in Xinjiang to sourcing leaders in Älmhult, the people we met all contributed in different ways to make it possible to conduct this project. We would especially like to thank our supervisor at IKEA, Joakim Hammar, for the great opportunity he gave us. We are grateful for the guidance throughout the project and more importantly for challenging us to develop our own capabilities to take initiative and lead a project. We want to thank Saravanan Mahalingam and Sarah Yin for the generous and wholehearted support throughout the project. We would also like to acknowledge Aven Li, Bora Oztunc, Helen Fu and the rest of the textile trading team in Shanghai for the support and patience with our numerous questions.

We want to thank Kim Jin and Tony Dai from IKEA who supported us in Xinjiang and guided us through anything from cotton fields to Chinese food delicacies. Furthermore, the generous welcome from the people we met in Xinjiang was brilliant. It is an experience we will never forget.

Last, we want to extend our gratitude to Jonas Hjerpe, our supervisor at Chalmers University of Technology, for the strong commitment, intelligent feedback and inspiring meetings.

Gothenburg, June 2012

Katarina Lindh & Klara Södergren

Abstract

Global sourcing is becoming increasingly complex, going beyond low-cost advantages of sourcing locations. With recent moves towards outsourcing, firms are spending an increasing share on purchasing and invest in close long-term relationships with suppliers. The competition is no longer between companies but between supply chains. This is why the sourcing strategies of a firm have become one of the key determinants to obtain a sustainable competitive advantage in an increasingly globalised world.

This Master's thesis was conducted during a six months case study at IKEA in Shanghai. IKEA is facing difficulties with increasing prices from textile suppliers on the East coast of China. China is a country with a long history of textile production, but has lately been losing its cost-advantage to other textile producing low-cost countries. The Chinese government is seeking to move the textile industry inland and provide initiatives for companies to go there. One of the promoted textile regions is Xinjiang located in the West of China, which is a region that attracts textile companies with low utility costs and a large cotton supply.

The purpose of this dissertation is to recommend the optimal sourcing option for IKEA in China, which will lower cost and concurrently maintain or improve quality and sustainability of the home textiles, both with respect to the supply chain and innovative solutions. In order to fulfil this purpose, three strategic sourcing options were identified that can make IKEAs textile sourcing in China competitive despite the increasingly expensive business environment.

- Establish a supplier, partnership or in-house production in Xinjiang with closeness to the local cotton
- Maintain current suppliers on East coast and influence them to have a flexible yarn sourcing from different countries
- Move suppliers or change to new suppliers in an inland region such as Hubei and influence them to have a flexible yarn sourcing from different countries

The three sourcing options were analysed by applying a theoretical framework that consists of an internal IKEA perspective and an external environment perspective, including both qualitative and quantitative aspects.

The strategic alternative IKEA should arguably further consider is to invest in a joint venture with a textile producer in Xinjiang and produce bleached fabric in an innovative weaving and bleaching set-up, using the locally produced sustainable cotton. The Xinjiang option has a high implementation effort but an even higher benefit potential, which is why this is the alternative IKEA should consider in order to lower costs and at the same time improve quality and sustainability. Since textile is a strategically important competence for IKEA, at the same time as the level of competitiveness compared to textile suppliers is quite low, IKEA should gain control of the textile production and invest together with a partner. The strategic sourcing option fit well with IKEAs sourcing characteristics and with the vision to create a better everyday life for the many people.

Key words: global sourcing strategy, textile supply chain, China location analysis, Xinjiang

Table of content

- Writers’ wordsi
- Abstract..... ii
- Table of contentiii
- 1. Introduction1
 - 1.1. Background.....1
 - 1.2. Purpose.....2
 - 1.3. Research Questions2
 - 1.4. Scope.....3
 - 1.5. Disposition.....3
- 2. Literature.....4
 - 2.1. Global Sourcing Strategy4
 - 2.1.1. Background.....4
 - 2.1.2. Internally – the Business Strategy.....6
 - 2.1.3. Externally – the Corporate Strategy.....8
 - 2.1.4. The Future of Global Sourcing 12
 - 2.2. Textile Supply Chain..... 13
 - 2.2.1. Background of the Textile Industry..... 14
 - 2.2.2. Raw Material Importance in the Textile Industry..... 14
 - 2.2.3. Characteristics of the Textile Value Chain..... 16
 - 2.2.4. Sustainability in the Textile Industry..... 17
 - 2.2.5. Strategy in Mature Industries 17
 - 2.2.6. Sourcing Strategies in the Retail and Textile Industry 19
- 3. Method..... 22
 - 3.1. Research Strategy 22
 - 3.2. Research Design and Methods..... 22
 - 3.3. Sample Selection..... 23
 - 3.4. Data Collection..... 24
 - 3.4.1. Case Study..... 24
 - 3.4.2. External Interviews 25
 - 3.5. Data Analysis 26
 - 3.6. Reliability and Validity..... 26
- 4. Theoretical Framework 28

4.1.	Internal- The firm	28
4.1.1.	Performance Objectives.....	28
4.1.2.	Products and Processes.....	29
4.2.	External – the Environment	30
4.2.1.	Location Analysis.....	30
4.2.2.	SWOT and Opportunity Matrix.....	31
4.2.3.	Vertical Integration or Outsourcing	32
5.	Empirical Results.....	36
5.1.	Textile Sourcing at IKEA	36
5.1.1.	Introduction to the IKEA Sourcing Function.....	36
5.1.2.	IKEA Product Categories	37
5.1.3.	Strategic Priorities	37
5.1.4.	Sourcing Characteristics.....	39
5.2.	Textile Industry in Increasingly Expensive China	41
5.2.1.	Development Trends of the Business Environment in China.....	41
5.2.2.	Description of Textile Locations in China	43
5.2.3.	Factor Conditions – Utility, Labour and Transport.....	45
5.2.4.	Raw Material Sourcing	49
6.	Analysis of the Strategic Sourcing Options for IKEA.....	52
6.1.	Internal – the Firm.....	53
6.1.1.	Analysis of IKEA Sourcing Strategy.....	53
6.1.2.	IKEA Textile Products in China.....	54
6.1.3.	Innovative Textile Supply Chain	55
6.2.	External – the Environment	58
6.2.1.	Cost Comparison of the Sourcing Options.....	58
6.2.2.	Qualitative Analysis of the Two Sourcing Options.....	62
6.3.	SWOT of the Two Sourcing Options	64
6.3.1.	East Coast Supplier with Flexible Yarn Sourcing.....	65
6.3.2.	Producing or Purchase Textiles in Xinjiang with Closeness to Local Cotton	66
6.4.	Opportunity Matrix	69
6.5.	Outsourcing or Vertical Integration.....	70
6.6.	Recommendations to IKEA – Be Present in Xinjiang.....	73
7.	Conclusion.....	76
8.	Discussion	79

8.1. Beyond Low-Cost Advantages	79
8.2. Contributions to Global Sourcing	80
8.3. Evaluating Innovative Strategies	81
References.....	83
Written references	83
Electronic.....	85
Appendix A – Interviews	86
Appendix B – Example of Interview Questionnaire	88

|

1. Introduction

In this chapter an introduction to the Master's thesis is given, starting with a background that introduces the reader to global sourcing strategy, the textile industry in China and the case company IKEA. Thereafter, the research questions that will be answered in the thesis are presented. The chapter ends by outlining the scope and disposition of the study.

1.1. Background

Global sourcing strategy has been one of the most hotly debated management trends in the last 20 years (Kotabe & Murray, 2004). With global sourcing, companies can take advantage of capabilities of different countries such as availability of certain skills, beneficial government policies or cheap commodity and labour costs. The scope of global sourcing has expanded over time. Before sourcing strategy was determined depending strictly on price and fluctuating exchange rates. Today, many companies consider not only price but also factors such as quality, reliability and technology. These companies interplay between their internal competitive advantages and the competitive advantages of the sourcing location (Kotabe & Murray, 2004). When sourcing in a foreign country, companies can choose between outsourcing from local suppliers, have a partnership with local players or have an in-house production located in the country (Grant R. , 2010).

Since China reopened in the late 1970s the country has been attracting many foreign investors. China is the largest emerging market with more than 600 000 foreign companies that have invested in the country (Fang et. al, 2010). In the beginning the foreign investors were attracted by almost free access to land and labour, and products were produced more cheaply than ever before and sold all over the world (The Economist, 2011).

Today, however, the business environment in China is changing dramatically. Salaries and commodity costs are increasing rapidly at the same time as the domestic market demand is increasing with the growing living standard of the Chinese population. The Chinese government is also changing focus, from fostering the low cost consumer goods industries to more value-adding industries. In the newly published 12th 5-year plan the government is presenting seven priority industries, with focus on moving China up the value chain and improve sustainable growth (KPMG Advisory China, 2011). Companies in price sensitive industries are chasing lower production costs by moving inland, to the less developed West China, or by moving to other low cost countries, such as Indonesia, Bangladesh, India and Vietnam. *"It is the end of cheap goods"* says Bruce Rockowitz, chief executive of Li & Fung, a company that sources more clothes and common household products from Asia than any other. He does not believe in moving manufacturing to new emerging markets since none of these places will curb inflation the way southern China once did. Furthermore they have rising wages and poor logistics. (The Economist, 2011)

The textile industry is a mature cost-sensitive industry where the margins are low. For decades factories have been moving from one country to another in a constant chase for the lowest commodity and labour costs (Farrell et. al, 2005). China has always been an important country for textile production. However, the Chinese East coast where most textile suppliers are today is becoming increasingly expensive with wage increases of almost 20 % per year and a lack of electricity and water supply (Sirkin et. al, 2011). The central government of China is now trying to shift the textile industry to the less expensive inland regions and offers important subsidies and tax reductions to the textile players who move there. (KPMG Advisory China, 2011).

One of the regions in focus is Xinjiang in Northwest of China that produces 16 % of the global cotton output and has low operating costs (Solidaridad, 2010). Several large textile investments have been made there the last

years. However, the pace of China's growth indicates that the cotton, labour and usage costs in Xinjiang will increase rapidly and perhaps even reach the levels of the East coast. Hence, textile producers and retailers need to find new ways to be cost competitive. They need to be innovative in the supply chain and sourcing of materials since cotton is an increasingly expensive commodity (EmergingTextiles, 2012). Furthermore, the production needs to be innovative in order to increase productivity and lower the usage of water, electricity and chemicals. The factors above signify a reshuffling of the textile industry where the emphasis is on efficiency, innovation and sustainability instead of only low costs. (Gong, 2011) Above all, the retailers need to fundamentally rethink the strategy for their textile sourcing in order to find a sustainable competitive advantage.

IKEA offers home furnishing products at prices so low that as many people as possible will be able to afford them. However, IKEA is facing tough challenges when it comes to purchasing certain cotton textile products for a low cost. The existing Chinese suppliers are already pushed to lower their prices and have low margins. Hence, IKEA is considering to strategically change their sourcing strategy in China. Instead of sourcing from current Chinese suppliers, IKEA investigates the opportunities in the inland regions and moreover, the possibilities to vertically integrate upstream to gain control of the value chain. The company is also considering to source yarn from other countries where cotton is cheaper.

IKEA's sourcing challenge invites us to investigate how this can inform scholarly knowledge in the field of supply chain and innovation management. Extensive research has been made when it comes to improving the global sourcing by outsourcing production to low-cost countries. However, when the low-cost country becomes expensive there is limited research in how sourcing once again can be competitive without moving to a new low-cost country. This research will compare the different strategic sourcing options, both when it comes to fundamentally rethink the supply chain and find new sourcing locations, with the aim to recommend the optimal alternative for IKEA.

1.2. Purpose

The objective is to recommend the optimal strategic sourcing option for IKEA in China with the purpose of lower costs and concurrently maintain or improve quality and sustainability of home textiles, both with respect to the supply chain and innovative textile solutions.

1.3. Research Questions

The study seeks to answer the following main research question:

What is the optimal strategic sourcing option for IKEA in China that will lower costs and concurrently maintain or improve quality and sustainability of the home textiles, both with respect to the supply chain and innovative textile solutions?

This research question is divided into the following six sub-questions:

1. What does state-of-the-art scholarly knowledge about global sourcing tell us about types of problems and opportunities that should be further considered in the present IKEA study?
2. What are the most essential characteristics of IKEA's textile sourcing? What are the strategic priorities with this particular state of affairs?

3. Given the economic conditions and the development trends in China, what strategic sourcing options are available for IKEA to consider?
4. Given IKEAs resources and strategic priorities, what are the main strengths and weaknesses of aforementioned strategic sourcing options?
5. What strategic alternative should IKEA, arguably, further consider in order to lower costs and concurrently maintain or improve sustainability and quality in the textile sourcing?
6. What are the major learnings for the scholarly knowledge from the present IKEA study?

1.4. Scope

This Master's thesis is carried out on behalf of IKEA Trading in China. For this reason, the study will be performed with a particular focus on IKEA and give recommendations to how the firm should drive its textile sourcing business forward. Nevertheless, the study will give useful insights for all companies involved in the textile business in China and furthermore, additional knowledge in the field of global sourcing will be useful for academia.

The authors are not comparing Chinese sourcing alternatives with what other countries can offer. Instead the study is performed with the condition that IKEA needs to continue to source textiles in China. Hence, different sourcing options within China will be compared and evaluated.

The dissertation will focus on cotton home textile products. Home textile products are all products in the home that are not apparel and clothes. Since the majority of IKEAs textile products are made of cotton this will be the focus of the study and all other materials are excluded from the analysis.

1.5. Disposition

The thesis is structured in eight chapters as follows. After the introduction, Chapter 2 covers the previous research in the field regarding global sourcing strategy, supply chain management and the textile industry. The chapter seeks to give an understanding of the opportunities and challenges that should be further considered in the present IKEA study. Chapter 3 addresses the purpose of the method and the chosen methodologies are outlined. Furthermore, the chapter discusses the reliability and validity of the chosen methods. This is followed by Chapter 4, the theoretical framework that will be applied to analyse the empirical data from both an internal and external perspective. Chapter 5 addresses research question 2 and 3; the characteristics of IKEAs textile sourcing and the development trends in China. The chapter recommends which sourcing options that are available for IKEA to further consider. Thereafter, Chapter 6 evaluates the sourcing options and recommends which option IKEA should further consider in order to lower costs and concurrently maintain or improve sustainability and quality in the textile sourcing. Chapter 7 revisits the research questions in relation to the results and findings. To conclude, Chapter 8 discusses the major learnings for the scholarly knowledge from the study.

2. Literature

In this chapter existing research in the field of global sourcing strategy will be discussed in order to provide a deeper understanding of what will be further considered in the present IKEA study. In the literature global sourcing strategy is often discussed with a distinction between internal and external strategic questions and the chapter follows this structure. Internal strategic issues include how companies should identify capabilities and develop a competitive advantage, while external strategic questions are focusing on the level of vertical integration and the analysis of which location that will give the strongest competitive advantage. The literature chapter will also explain the characteristics of the textile industry to provide the reader with a general understanding of the industry that is needed in order to understand the IKEA case. The end of the chapter will illustrate different sourcing strategies in companies within the textile or retail business, which will be used in the following chapters in comparison with IKEAs textile sourcing strategy.

2.1. Global Sourcing Strategy

This section will outline state-of-the-art scholarly knowledge about global sourcing. This is a foundation that tells us about the opportunities and problems that should be further considered in the IKEA study. In this part we will present a background to global sourcing strategy and continue with explaining internal and external strategic sourcing questions that are important for decision-making in multinational firms.

2.1.1. Background

In an increasingly globalized world, there are more potential producers in a wider variety of countries. With consumers that demand more variety, more product access and lower prices, pressure on organisations to search for new sources of supply will only increase. (Abernathy et. al, 2005)

For many years, purchasing managers had only one important priority: cost reduction. Components are increasingly sourced from foreign, low-cost countries. Especially labour-intensive industries are moved to the cheapest countries. Decision-makers analyse familiar issues such as labour, material and shipping costs. However, modern supply chain dynamics are adding factors to this traditional list. (Abernathy et. al, 2005) The future of industries that rely solely on low wages as the source of competitive advantage is increasingly vulnerable (Fang et. al, 2010). Today, many companies reduce their supplier base in order to get lower transaction costs with long-term supplier relationships. Obviously, reducing the number of suppliers gives rise to an increasing supplier risk and therefore risk management has become an important topic. Furthermore, suppliers have become an important source of innovation and they are increasingly involved early on in the product development process. Global sourcing has also given rise to discussions regarding sustainability and many large firms have been in ethical disputes. The traditional strong price orientation has changed into a new purchasing agenda where purchasing managers need to balance cost and risk factors against value aspects as Figure 1 illustrates. (Van Weele, 2010)

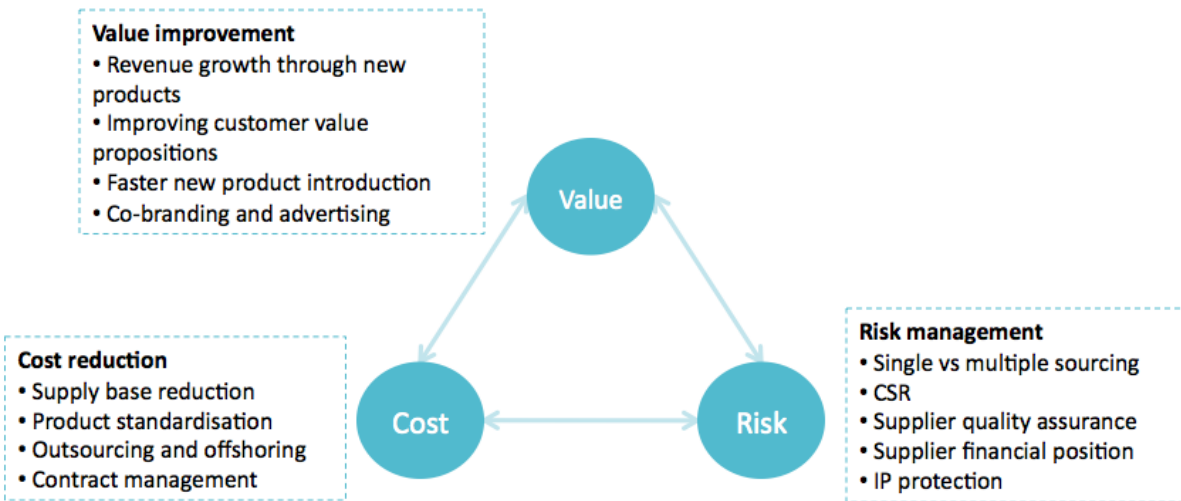


Figure 1. The purchasing agenda includes a balance of cost, risk and value (Van Weele, 2010)

The purchasing agenda of managing cost, risk and value is becoming even more complex considering the volatile global world we operate in. International supply markets are constantly on the move. Price levels may change from an all time high to an all time low in just a couple of months, influencing the company's margin directly. Furthermore, the ever-increasing volatility of some major currencies poses new problems to buyers who operate internationally. Changing currency exchange rates may require immediate action in terms of reallocation of their material requirements. (Van Weele, 2010) Adding to this list of complexities the fact that a typical industrial firm spends more than half of every sales dollar on purchased products, and this percentage has been increasing with recent moves towards outsourcing (Dyer et. al, 1998). Consequently, the complexity and importance of these issues is making the company's global sourcing strategy one of the key determinants of a sustainable competitive advantage. It is of uttermost importance to have a competitive purchasing performance for a multinational firm of today, and that is why this study is interesting for the business industry as well as the academia in general.

In this dissertation, the term *sourcing* refers to a broad meaning of buying, purchasing, outsourcing, manufacturing and producing (Fang et. al, 2010). *Global sourcing* is defined as proactively integrating and co-ordinating common items and materials, processes, designs, technologies and suppliers across worldwide purchasing, engineering and operating locations (Van Weele, 2010).

What is *strategy* then? In its broadest sense, strategy is the means by which individuals or organisations achieve their objectives (Grant, 2009). In an environment of uncertainty and change, a clear sense of direction is essential to pursue the strategic objectives. Porter (1996) states that strategy is not about doing things better (that is operational effectiveness) instead it is about making things *differently*. Hence, the organisation needs to make strategic choices. (Porter, 1996) The two most basic strategic questions are:

- *How* to compete?
- *Where* to compete?

The answers to these questions define the two basic levels of strategy in a firm:

- *Business strategy* is concerned with how the firm should compete within its industry or market in order to establish a competitive advantage over its rivals. (Grant, 2009)

- *Corporate strategy* defines which industries or markets that are attractive for the firm to compete in. It includes strategic decisions such as investment in diversification, vertical integration and new ventures. (Grant, 2009)

These levels of strategies are important for deciding how the organisation should conduct its sourcing in an increasingly globalized world. Therefore IKEAs business and corporate strategies will be evaluated when analysing IKEAs possible textile sourcing options in China. Business strategy is commonly seen as internal, while corporate strategy is external, and this is how they will be described in the following sections.

2.1.2. Internally – the Business Strategy

When establishing how the firm should compete, a first step is to identify the core competences of the organisation, which will be discussed in the beginning of this section. Thereafter, we discuss how to develop the capabilities that are needed to accomplish the firm’s strategy.

Identifying Capabilities

There is an increasing emphasis on the role of resources and capabilities as the basis for strategy. As firms’ industry environments have become more unstable and volatile, internal resources and capabilities are viewed as the more secure base for formulating strategy. Furthermore, it has become increasingly apparent that competitive advantage rather than industry attractiveness is the primary source of superior profitability. Firms in the same industry can have very differing profitability. (Grant, 2010)

Companies are competing with their organisational capabilities. Organisations create superior value for their customers by managing their core processes better than competitors manage theirs. These core processes can be activities such as new product development, supplier development and customer management. By performing these fundamental activities in a more cost-effective way than competitors, firms will gain advantage in the marketplace. Jorma Ollila, the past Chairman and CEO of Nokia, powerfully expressed this principle:

“Our experienced and unique way of operating is what we see as increasingly putting us ahead of the competition. As we move forward in this complex industry, winning will be less about what we do and more about the way we do it.”

(Christopher, 2011)

Whereas the competitive model of the past relied heavily on product innovation this will have to be increasingly supplemented by process innovation. More emphasis needs to be placed on developing and managing processes that deliver greater value for key customers. (Christopher, 2011)

Researchers that are focused on sourcing strategy often discuss core competences when it comes to the make or buy-question. Van Weele (2010) argues that in order to create a sustainable competitive advantage a company should concentrate its resources on a set of core competences where it can provide unique value for its customers. Hence, the firm should strategically outsource all other activities (Van Weele, 2010). Vertical integration versus outsourcing will be further discussed in Section 2.2. For now, the important question to be answered here is; how does the firm know what its core competences are? Van Weele (2010) suggests that characteristics of core competences are:

- Skills or knowledge sets, not products or functions
- Flexible, long-term platforms that are capable of adaption or evolution
- Limited in number, usually two or three
- Areas where the company can dominate and difficult for competitors to imitate
- Embedded in the organisation’s systems

The competences that satisfy these requirements are the core competences of the firm that will provide long-term competitive advantage. A firm cannot only rely on the core competences it has today, it also needs to develop its capabilities in order to be competitive in a dynamic business environment.

Capability Development

A company's strategic intent is a long-term goal that is ambitious, builds upon and stretches the firm's core competences. Once the strategic intent has been articulated, the company should be able to identify the resources and capabilities to close the gap between the strategic intent and the current position. (Schilling, 2010)

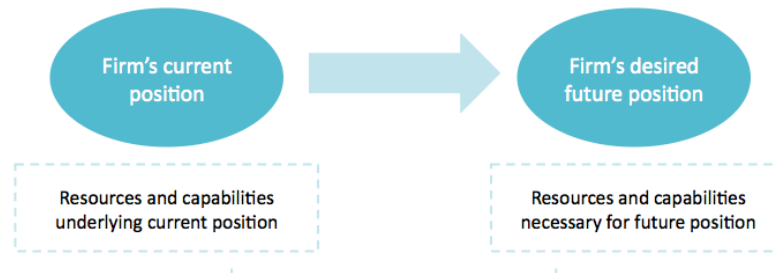


Figure 2. Resource and capability gap (Schilling, 2010)

If we examine the organisational core capabilities of a firm, these capabilities have developed over a significant period of time. Resources are somewhat 'sticky', which means that the firm in some degree is stuck with what they have and may have to live with what they lack. A company's capabilities today are the result of its history. This is called *path dependency*. In a way, the core capabilities act as barriers to a firm's ability to change. The more developed the capabilities are, the more difficult it is for the firm to adapt them to new environments. Hence, the core capabilities are simultaneously *core rigidities* since they inhibit the firm's ability to access and develop new capabilities. (Leonard-Barton, 1992) As a matter of fact, it is seen as a capability in itself to be able to react to changing environments. Teece et. al, (1997) introduce the term *dynamic capabilities*, which refers to the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Teece et. al, 1997). So how does a company develop new capabilities? The firm can either develop capabilities internally or acquire knowledge from outside the firm.

There is limited knowledge about how capabilities are created and developed. Therefore, companies often focus their development efforts not on the organisational capabilities themselves, but on the products that use those capabilities. (Grant, 2010) In order for the firm to better understand the core competences, Hamel and Prahalad (1990) describe the organisation as a large tree where the roots are the core competences as depicted in Figure 3.

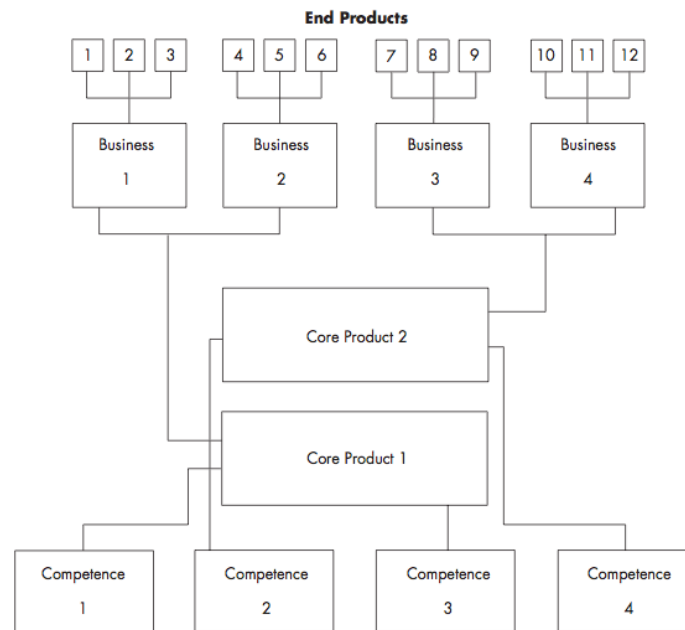


Figure 3. The organisation can be illustrated as a tree where the core products is the trunk and the core competences are the root system (Hamel & Prahalad, 1990)

The trunk and major limbs are core products. The smaller branches are business units and the leaves and flowers are end products. The root system that provides nourishment and stability is the core competences. You can miss the strength of your competitors by only looking at the leaves, the end products. The tangible link between core competences and end products are the core products. Core products are components that contribute to the value of the end product. For example, Honda's core products are the engines, which are a part of multiple different products, from motorcycles to four-wheel buggies. A firm needs to be aware of which the core products are in the organisation. Thereafter, the firm should invest in technologies and human resources needed to develop the core products. (Hamel & Prahalad, 1990)

Organisations will not only be able to develop internal capabilities, they can also acquire capabilities from outside the firm. Acquiring capabilities is a fast way to gain another company's competences. This is especially common in fast-changing, technological environments. However, using acquisitions to extend a company's capabilities involves major risks. First, it is expensive to buy another company. Second, the targeted capability comes with a mass of additional resources and capabilities that are most likely unnecessary. Third, the acquiring company must find a way to integrate the acquired capabilities with its own which can be a difficult task. (Grant, 2010) We will further deepen our knowledge about organisational boundaries in the following section concerning the corporate strategy.

2.1.3. Externally – the Corporate Strategy

This section describes strategic decisions that can be seen as external to the firm. It will be divided into two parts, the vertical scope where we discuss the make or buy-question and the geographical scope that explain how to make strategic location decisions.

Vertical Integration or Outsourcing

One of the most fundamental strategic decisions every company faces is which activity that should be conducted in-house and which should be outsourced to various partners and suppliers. These decisions will define the firm's business model and determine whom it considers its customers, suppliers, competitors and partners. (Hayes et. al, 2005) Vertical integration can be both backward, where the firms takes over ownership and control of producing its own components, or forward, where the firm takes over the activities previously undertaken by its customers. (Grant, 2010)

Many researchers claim that firms should focus on a narrow set of core competences and outsource all other activities. Vertical integration is deemed to be too costly, inflexible and distracting for companies competing in fast-paced environments. It is an increasing trend that large firms outsource activities in order to be able to specialise on a few internal capabilities where they want to excel. By focusing its resources and attention on a narrow set of activities, an organisation should be able to perform them better than an organisation that spreads itself more broadly (Hayes et. al, 2005). In a research among managers in U.S. the primary drivers for outsourcing were cost reduction (operating cost and capital investment) and the need to focus on the core business. Over 80% of the companies had indicated these two drivers (Van Weele, 2010). Simultaneously, a high degree of outsourcing may lead to a hollow corporation. As mentioned earlier, Hamel and Prahalad (1990) argue that the core competences are embodied in the core products. The more these products are outsourced, the larger the risk that the core competences erode over time.

One way to better understand the make or buy-question is by analysing the *transaction costs* in the value chain. In a market with low transaction costs there are many buyers and sellers, information is readily available and the switching costs for buyers and sellers are low. This is the case in for example the flour industry. Few flour-mills own their own wheat farms since the transaction costs in the market are low. If we instead focus on the steel industry, vertical integration dominates between steel production and steel strip production (strips later on become cans). Since there are technical economies from hot-rolling steel as soon as it is poured from the furnace, steel makers and strip producers must integrate their facilities. The actors are locked together in a bilateral relationship with high switching costs and only one seller/buyer. When the transaction costs are this high it is beneficial to vertically integrate. (Grant, 2010)

Buyers and sellers can interact and coordinate their interests in many different types of relationships. Figure 4 below shows different degrees of commitment.

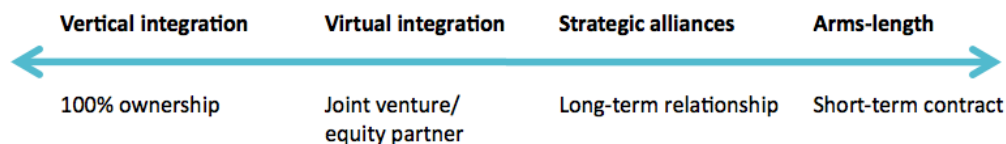


Figure 4. Different degree of commitment between buyers and sellers (Schilling, 2010)

A strategic alliance is a cooperative relationship between firms involving the sharing of resources in pursuit of common goals. It is often common that a large firm forms an alliance with a smaller firm. The large firm wants to take part of the small firm's innovative capabilities while the small firm wants to tap the large firm's greater capital resources, distribution and marketing capabilities. (Schilling, 2010) The opportunities and flexibility that can be gained through an alliance come at a certain cost. Schilling (2010) claims that over half of all alliances fail because of the difficulty in coordinating activities of two independent firms and the hazards that arise when firms pursue their own interests rather than the collaborative interest. The more a company

outsources its value chain activities, the more it needs to develop system integration capabilities to coordinate and integrate the activities (Grant, 2010). A joint venture is similar to a strategic alliance but it requires more structure and commitment. It usually involves a significant equity investment from each partner and often results in a new separate entity. (Schilling, 2010)

Vertical integration and outsourcing strategies play an important role in the firm's approach to protect intellectual capital. Outsourcing often involves exchanges or transfers of intellectual property. (Hayes et. al, 2005) Where intellectual property is less protected legally or is easy to imitate this means that the firm has weak appropriability. Teece et. al. (1986) state that a firm with a weak appropriability regime should be careful when outsourcing. It might be difficult to prevent an intellectual property from diffusing if an outsourcing partner also has relationships with a competitor. If the appropriability is weak it might be better to vertically integrate.

There has been a massive shift from arm's length supplier relationships to long-term collaboration with fewer suppliers. Competitive tendering and multiple sourcing have been replaced by single-supplier arrangements. One reason is that modern information technology enables companies to improve their material planning and supply systems in their relationships with their suppliers. (Van Weele, 2010) In these long-term collaborations companies are trying to reduce transaction costs by using less formal contracts and instead build trust-relationship with its suppliers. They share more information and are better at coordinating interdependent tasks. They also invest in relation-specific assets that lower costs and improve speed and quality. (Dyer et. al, 1998)

To sum up, the vertical integration decisions revolve around two key questions. Firstly, which activities will we undertake internally and which will we outsource? Secondly, how do we design our vertical arrangements with both external and internal suppliers and buyers? In the theoretical framework, we will mainly focus on the first question by outlining under what conditions an organisation should vertically integrate.

Location Analysis

In international industries, competitive advantage largely depends on the national environment where the firm is doing or is planning to do business. It is important to be able to analyse the implications the national environment has on the firm's competitive advantage. Only then will the firm be able to formulate strategies for exploiting business opportunities abroad, such as overseas production strategies. (Grant, 2010)

International competitiveness is depending on the national resource availability. A country has a comparative advantage in those products that use those resources available in abundance in that country. Bangladesh has an abundant supply of unskilled labour while U.S. has an abundant supply of technological resources. This is called the *theory of comparative advantage*. For a company to decide a strategic sourcing location, multiple levels need to be taken into consideration. Factor conditions are analysed, such as labour, infrastructure, energy, transport, the political situation and legislative conditions. (Uncu, 2003)

However, Porter (1990) claims that we need to look beyond the comparative advantage and instead analyse the competitive advantage of the nations. Finding the region with the lowest utility costs is only partly solving the problem of a competitive supply chain. Porter has examined the dynamics through which particular industries within a country develop the capabilities that gives international competitive advantage. He claims that there are four determinants of national competitive advantage that together form the *national diamond*.

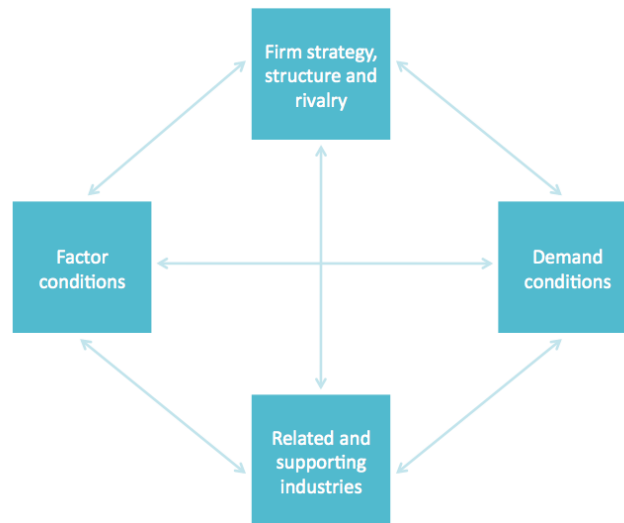


Figure 5. Porter's national diamond is formed by four determinants of national competitive advantage (Porter, 1990)

1. **Factor conditions.** The traditional factors of production such as labour, land, natural resources, capital and infrastructure.
2. **Demand conditions.** The nature of the home market demand for the industry's product. In markets where the buyers pressure the companies to innovate faster and give a clear picture of emerging needs, the companies will increase their competitive advantage. (Porter, 1990)
3. **Related and supporting industries.** The presence of supplier industries that are internationally competitive. These suppliers will deliver the most cost-effective inputs in an early and rapid way. Home-based related industries provide innovation and upgrading. These clusters of industries are often centres of innovation such as Silicon Valley's cluster of software producers, venture capital firms and social media companies (Grant, 2010).
4. **Firm strategy, structure and rivalry.** The conditions in the nation that decide how companies are created, organised and managed as well as the nature of the domestic rivalry. Intense domestic competition is driving innovation, efficiency and the upgrading of competitive advantage. (Porter, 1990)

These four determinants are affecting each other. Porter (1990) continues by stating that companies will only sustain competitive advantage if they continuously upgrade their home-base capabilities. *"Innovating to offset local disadvantages is better than outsourcing; developing domestic suppliers and buyers is better than relying solely on foreign ones."* (Porter, 1990, p. 92) The correct approach to globalisation is to tap selectively into sources of advantages in other nations' diamonds.

Being successful in a country hence requires that the business strategy of the firm is in line with the national competitive advantage. In most countries the competitive advantage is different in different regions. Uncu (2003) explains that there exist three levels in international decision-making regarding plant or sourcing

location. The first level is to decide which country to source or produce in. The second level includes the selection of a region in the country, such as the East coast or West inland regions in China. Finally, the third level consists of selecting a site in the region with the most operational advantages.

The key condition factors such as salaries and political subsidies will change over time in the dynamic environment we live in. Hence, the decision is multi-periodic. Condition factors of a location needs to be considered over multi-periods of time. (Unctu, 2003) This is something we will take into consideration in the empirical results and analysis of the report.

Location and the Value Chain

The production of most goods comprises a vertical chain of activities where the input requirements vary substantially. Hence, different countries offer advantages in different stages of the supply chain. The laptop is a typical example of a globally dispersed value chain where every component and every process is located according to the best combination of cost and technical know-how. The benefits from fragmenting the value chain must be traded off against the added cost of coordinating the activities. Apart from cost of transportation and higher inventories, a key cost of dispersed activities is time. Companies that value speed of delivery will prefer to have integrated operations with fast access to the final market. (Grant, 2010)

In supply chain management there is an increasing focus on lead times. The lead time is the time taken from the drawing board, through procurement, manufacturing and assembly to the end market. The management of this time span is the key to success in managing logistics operations. There are already products where the life of the product on the market is shorter than the time it takes to design, procure, manufacture and distribute the same product! In a global context this problem is exacerbated with the longer transportation times that is needed. (Christopher, 2011)

2.1.4. The Future of Global Sourcing

As the competitive context of business continues to change, bringing with it new complexities and concerns for management in general, the impact on supply chain management of these changes can be considerable. Christopher (2011) claims that of the many strategic issues that confront the business organisation today, perhaps the most challenging are in the area of supply chain management. Below follow some new developments within purchasing.

Early supplier involvement in new product development. As more and more innovations come from suppliers, getting them involved in an early stage in the product development process becomes an issue of prime concern. Both the rapid development of technology and the cost related to developing new products force large organisations to work more closely with suppliers. Gain and risk sharing agreements replace the traditional price negotiations, enabling a more intensive and long-term relationship with these suppliers. (Van Weele, 2010)

Growing concern of the environment. Corporate Social Responsibility is posing new challenges to purchasing. Firms should contribute to a better world, a better environment and better labour conditions. Business solutions should be developed in such a way so that requirements of the current world are met without doing harm to the needs of future generations (Van Weele, 2010). In recent years we have seen a considerable growth in the awareness of greenhouse gas emissions. As a result of the globalisation of supply chains we are now moving products greater distances than ever with a consequent impact on the carbon footprint. If we go beyond the carbon footprint it must also be recognised that supply chain decisions have a wider impact on resources generally. Firms should consider the effect of using scarce resources across the

value chain as a whole, from design, sourcing and manufacturing to deliver and return. In this dissertation we will mostly focus on the production's impact. In the production stage firms can improve energy efficiency, reduce waste or rework and eliminate pollution and emissions. (Christopher, 2011)

Supply closer to demand. While centralised production and offshore sourcing will still make sense for some product categories, many researchers are now claiming that there will be a need to bring supply closer demand. This change in thinking will be driven by increasing transportation costs and a growing environmental concern over carbon footprints. (Christopher, 2011) The cost of shipping a 40-foot container from Shanghai to US east coast has tripled between 2000 and 2008. Unless the container is full of diamonds shipping costs have suddenly inflated the cost of the goods inside. (Rubin, 2008) Taking into account a weaker dollar, higher US productivity and rising Chinese wages the cost gap between US and China will virtually close for many goods consumed in North America. A Boston Consulting Group report advises companies to undertake an analysis of their global supply network that accounts for total costs, not just factory wages. For many products sold in North America, the US will become a more attractive manufacturing option. (Sirkin et. al, 2011)

However, if we think one step further, the question is not only where the supply should be in the future but also where the future demand will be. The redistribution of wealth will shape the future supply chain. It is estimated that over the next 20 years the United States' share of worldwide wealth will slip from 28% to 24%. During the same time Asia's share of the global market will almost double, meaning that it will account for over 50% of the global economy in 2030. (Christopher, 2011) Firms that have established production and supply chains designed to serve the western world's demand patterns may need to fundamentally reconfigure their supply chains to take advantage of the rapidly developing markets.

Holistic supply chain approach. Prices are driving down to levels that in real terms are as low as they have ever been and consumers are more value conscious than before. Hence, businesses need to find new opportunities for cost reduction. It can be seen that companies that thought they could achieve a lean operation by using just-in-time practices often only shifted costs elsewhere in the supply chain by forcing suppliers or customers to carry that inventory. For example, while car assembly operations were indeed very lean with minimal inventory, the same was not true for operations upstream and downstream of those operations. Since today's competition takes place not between companies but between supply chains, the proper view of costs has to be 'end-to-end' since all costs will ultimately be reflected in the price of the finished product in the final marketplace. (Christopher, 2011)

After this section the reader should have an understanding of what global sourcing strategy is and what strategic questions that are important for a firm to consider in global sourcing decisions. This will be analysed further later in this report in order to give recommendations to IKEA on what future sourcing strategy to consider in China. The section has presented the business strategy as the internal strategy of a firm, including identification and development of a firm's capabilities in order to gain competitive advantage. Corporate strategy is the external strategy of a firm. It includes strategic decisions such as where to source or produce and the make or buy-decision. Finally, the future trends of global sourcing strategy are discussed.

2.2. Textile Supply Chain

In this section a background is given to the textile industry in order to provide the reader with a general understanding of the industry and what strategic questions that are interesting to consider in the present IKEA study. Focus will be on the cotton textile industry in China, since it is the most relevant for the present study. The main characteristics of the textile value chain are explained, including the importance of raw

material, innovation and sustainability issues. Textile is a traditional industry and the final section includes strategies to gain competitive advantage in mature industries.

2.2.1. Background of the Textile Industry

The textile industry has played an important role for the industrialisation and is still often a first step for developing countries to be industrialized. Production is labour intense and requires low skill levels, capital requirements are not onerous and tradability of goods is high. Therefore, clothes and textiles have been the source of export-led industrialisation in a number of countries. (Barnes, 2009) Textiles are today one of the world’s most traded manufactured products and represent about 7% of world exports (Allwood et. al, 2006). The textile and clothing value chain is particularly suited to global production networks as most products can be exported at each stage of the chain, making the sector highly trade-intensive and sensitive to a country’s trade regime (Barnes, 2009). China has since long been the world’s largest exporter of textiles and clothing given its history of clothing manufacturing, low-cost utilities, good infrastructure and great professional skills (Domney, 2007).

The textile market is constantly growing because of an increasing demand from emerging markets at the same time as consumers in the industrial world consume more and demand faster fashion changes of the textiles. This leads to that the output in volumes from the textile sector is growing, at the same time as prices are dropping. Something else that is dropping is employment, as new technology and vertically integrated structures support productivity (Allwood et al., 2006). Cass Johnsson, president of the National Council of Textile Organisations describes the textile industry by saying *“Profit margins in textile companies are very low, around 3%, so there is not much room for them to manoeuvre. For many years companies have been concentrating on cutting costs. It’s a much more efficient industry, but there is not much fat in the system.”* (Lloyd, 2008)

The most important raw material in the textile industry is cotton. Laurence Sellyn, executive vice-president for Gildan Activewear Inc, a major supplier of cotton T-shirts, further describes the sector by saying *“Cotton represents about one-third of our total manufacturing cost. It’s a big factor”* (Bertrand, 2010). The last five years cotton prices have been fluctuating more than normal and negative environmental effects from cotton farming is becoming an increasingly discussed topic. Hence, the cotton is playing an important role for textile and apparel companies, which is why we will discuss raw material further in the following section.

2.2.2. Raw Material Importance in the Textile Industry

Raw material has a very large part of the cost breakdown of a textile product. Figure 6 illustrates a cost breakdown for a bed linen and as can be seen cotton stands for more than a third of the total product cost (IKEA, 2009). It is therefore important to obtain knowledge of the raw material in order to understand the industry. Textile is produced from fibres, which are usually divided into two main groups; natural and man-made fibres. Examples of natural fibres are cotton, wool and silk, whereas polyester is a man-made fibre. Different fibres can also be mixed together to give specific properties to the fabric. In this report we will focus on cotton since it is the most important raw material for IKEAs textile category. The cotton fibre is the most



Figure 6. Cost breakdown of a cotton textile product (IKEA, 2009)

important fibre in the world and is the backbone and basic foundation of the world's textile trade and industry. (Jindal & Jindal, 2007) The properties of the ultimate textile structure will depend largely on the characteristics of the fibre they are made of and different areas in the world grow cotton that can be used for different textile qualities. (Jindal & Jindal, 2007).

In Figure 6 major cotton producing countries are illustrated. The textile industry has developed largely around these areas and textile companies often source from the indicated countries, with China, India, Bangladesh and United States as the largest producers.

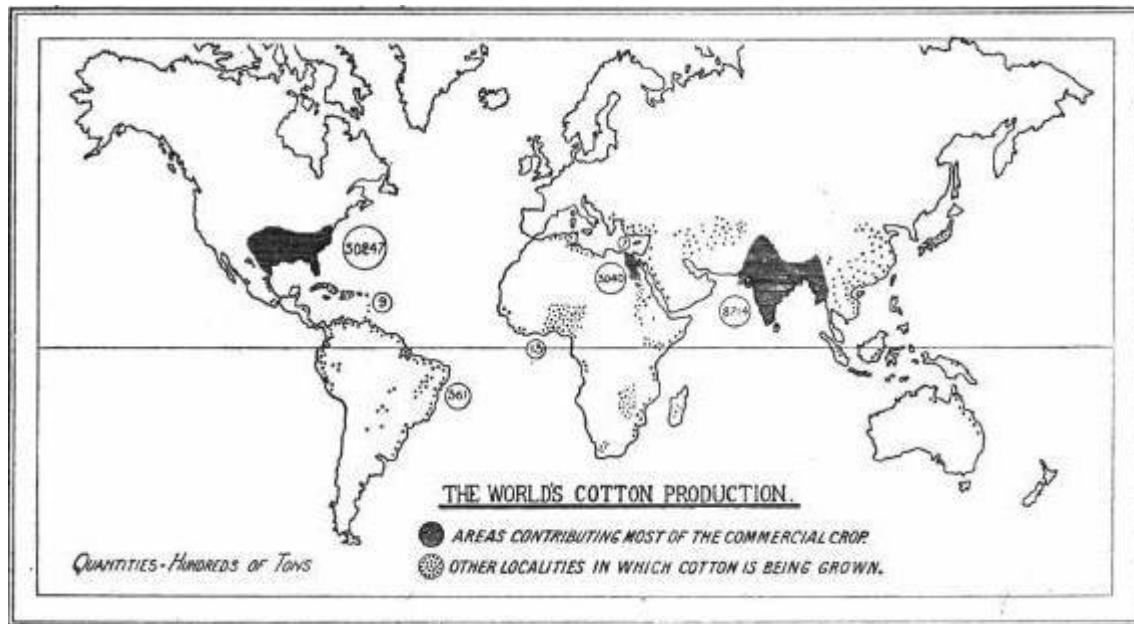


Figure 7. The main cotton producing countries in the world (Jindal&Jindal, 2007)

Today China is the largest cotton producing country in the world and about 300 million people are involved in cotton production in the country (UNEP, 2000). Cotton requires specific growing conditions in an ideal situation and is known as a sun loving plant. China is a country with a large area suitable for growing cotton. Today China is producing 25% of the total global cotton production, which make it the biggest producer of cotton in the world. Due to its leading textile and garments industry, it is also the biggest importer of cotton in the world. All together China consumes about 42% of the global cotton production.

In China cotton is grown from East to West and from South to North, but there are three main cotton locations that accounts for 98% of the total cotton output in China. These areas are Xinjiang, Yangtze River and Yellow River, see Figure 8. Of these areas Xinjiang is the most important cotton region accounting for 42% of the national production. Xinjiang is the most productive region due to its beneficial climate and professionalised agricultural practices. On the other hand, the region faces enormous challenges regarding scarcity of water and tough labour conditions with low income per farmer. Moreover, the distance to market is a

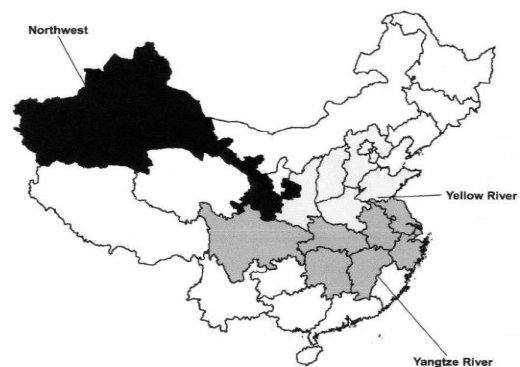


Figure 8. Xinjiang is the most important cotton region in China (Solidaridad, 2010)

disadvantage since Xinjiang is 4000 km away from the processing industry on China's East coast. (Solidaridad, 2010) Today IKEA sources a lot of textiles from China but also from India and Turkey among others. In general the Chinese cotton quality is higher than e.g. in India and Pakistan, which is why IKEAs textile products sourced from China in average has a higher cotton quality. In the present study the Xinjiang region is investigated as a possible region for IKEA to source textile from.

There have been large fluctuations in cotton prices the last years, and the prices peaked in 2010. Since cotton is such a large part of the value of cotton textile products, these fluctuations affect the textile companies a lot. The cotton price depends on factors such as weather, market, price regulations from the local government and speculations from different actors in the textile supply chain. (Barker, 2009) In this dissertation we will discuss IKEAs future sourcing options for cotton textiles and it is important to understand how dependant the textiles industry is on cotton prices.

2.2.3. Characteristics of the Textile Value Chain

The raw material goes through a number of processes before it becomes a finished textile product. In order to understand the textile sourcing and later in this study understand different aspects of the suggested textile sourcing options for IKEA, it is important for the reader to obtain a brief introduction to the textile value chain. The value chain includes a number of processes, which differ depending on type of raw material used and what type of product to produce. In this report we will focus on the textile value chain for cotton home textiles, because of the relevance for the IKEA case study.

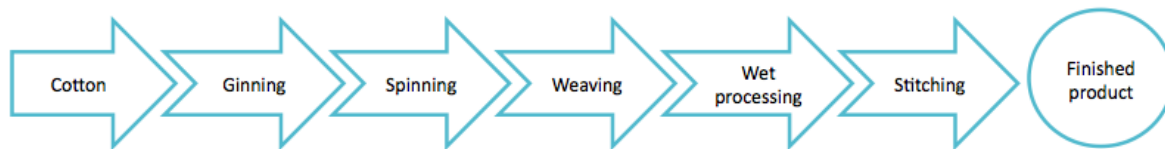


Figure 9. Processes in a textile value chain (IKEA, 2009)

After the cotton is picked, the cotton is sent to a ginning mill where lint and seed is separated. The cotton goes through dryers to reduce moist and through a cleaning equipment to remove foreign fibres. (Cotton Counts, 2011) Spinning is the process transforming cotton into yarn. The yarn can be twisted to get extra strength. The yarn is thereafter woven into fabric. The weave consists of two threads, the warp and the weft, and the two cross each other with right angles. Different patterns and structure can be achieved by varying the weave, the yarn and/or the thread density or closeness. After the fabric is woven it is given its colours and patterns with the use of prints and dyes. To achieve the wished result in the wet processing the fabric has to go through a pre-treatment, a dyeing or printing and a finishing process. To get one solid colour to the fabric, it is dyed with dyes. If the fabric should have a pattern it is usually printed. After the printing and dyeing the fabric will go through different finishing processes such as softening or water resistant finishing in order to obtain the wished properties. The fabric can then be stitched into finished textile products such as curtains or bed linen. It can also be filled with down and feather or polyester for products such as pillows and quilts. (IKEA, 2009) These products will be further discussed in the analysis of this study.

In the industry there are examples of textile players operating all or many of the processes in an integrated value chain, and companies operating only one of the processes. What is most common differ in different textile producing countries. In China it is most common with companies operating only one or a few processes and working with many suppliers and customers. The processes of the textile value chain require

different resources. There are often regulations on who can own a ginning mill. Moreover, spinning requires large investments in machinery and is quite labour-intensive. Both the spinning and weaving process have high levels of energy consumption. Wet processing uses a lot of water, steaming and chemicals. In this process the quantity of labour needed is low, but on the other hand it requires skilled labour with experience. They are important since this is a quality sensitive process in the value chain where it is crucial to get exactly the right colour and properties of the fabric. Stitching is a very labour-intensive process, but it does not require any large initial investments. (Peng, 2011)

2.2.4. Sustainability in the Textile Industry

Consumers' interest and demand for environmentally and socially sustainable products is increasing and companies are changing towards a larger focus on the environmental effect of their business. The textile industry has a large ecological footprint, with impacts on the environment and the society throughout the whole value chain. The major environmental impacts of the textile arise from the use of energy and toxic chemicals. (Allwood et. al, 2006)

Energy is used mainly in the spinning and weaving process and to produce steam that is used in the wet processing. However, new weaving machines have a higher weaving speed, require less electricity and are more automated (Rupp, 2008) It is also used in the cotton farming. (UNIDO, 1992) Cotton uses more pesticides than any other crop in the world, accounting for 25% of the world's insecticides and 10% of the pesticides. Organic cotton, which is grown without pesticides or insecticides, accounts for only 1% of the world's cotton trade and is grown mostly in Turkey and South Asia. (ProQuest, 2009) Chemicals are also used in manufacturing stages such as pre-treatment, dyeing and printing.

Water consumption in the cotton crop cultivation can also be a major environmental issue (Allwood, 2006). In order to understand how large the water consumption is, producing 1 kg cotton can require as much as 29 000 litre of water (Lindsjö et. al, 2011). Many cotton cultivation regions are facing a lack of water, which can cause tremendous problems for the local environment and the population living there. The Aral Sea is an example of an environmental disaster that was created because of cotton farming, where one of the Earth's largest seas was desiccated in the 1960s (Swedish Aral Sea Society, 2005). Large amounts of water are used in a conventional bleaching process, which can be reduced with an innovative production. After a conventional process the polluted water needs to go through a rigorous treatment process to reduce the amount of hazardous chemicals. With more environmentally friendly bleaching chemicals the wastewater would be easier to treat and better for the environment (Huntsmann, 2009) With this said it is clear that textile producers and textile sourcing companies must take their responsibility and work with reducing the serious environmental effects they cause. There is extensive research on improving the sustainability of cotton cultivation and textile production, and new innovations that are reducing the use of chemicals, electricity and water are already on the market.

2.2.5. Strategy in Mature Industries

In order to understand what is of strategic importance for IKEA textile business, we need to outline what type of industry the firm is acting in. The textile industry is a mature industry, as are industries such as food, vehicles, restaurants and financial services. That an industry is mature does not mean that it cannot grow and make a large profit, nor that it cannot be innovative. The examples of successful companies in mature industry are many and include companies such as Coca-cola, General Electric, McDonalds and H&M. (Grant, 2005). Van Weele (2010) claims that in the stage of maturity or decline the company can only maintain or reinforce its market position if it is able to sell end products (of basically the same level of quality and service level) for very competitive prices. During these stages of the lifecycle, measures aimed at cost reduction, quality

improvement and lead time reduction play a major role in maintaining or reinforcing the market position. (Van Weele, 2010)

According to Grant (2005) maturity has two implications for competitive advantage. First, it tends to reduce the number of opportunities for establishing competitive advantage. Second, it shifts these opportunities from differentiation-based factors to cost-based factors. The technical differentiation advantage decrease with increased buyer knowledge, product standardisation and less product innovation, and instead the focus is on cost advantages from superior processes or more advanced capital equipment methods. Currency exchange movements give a large effect and low-cost competitors from over-sea are emerging that increase the complexity. Furthermore, highly developed infrastructure and powerful distributors make it easy for competitors to attack established firms that have a specific niche. (Grant, 2005)

Cost advantage is an important success factor in most mature industries and three cost drivers tend to be especially important. *Economies of scale* are especially important in industries that are capital intense or where advertising, distribution or new product development is important elements of total costs. *Low-cost inputs* refers to that some firms may be locked in with for examples high labour costs through unions and competitors can undercut these firms by using e.g. suppliers in countries with low-cost labour. The last important cost driver is *low overhead costs*, which requires a rigorous control of management, administration and other overhead costs. The cost advantage gained in mature industries is a requirement for survival. However, the cost advantage is rarely sustainable and companies need to obtain some differentiation beyond a pure technical differentiation. (Grant, 2005)

Although retail customers can be unwilling to pay a premium price for differentiation, it is what distinguishes a successful company from an unsuccessful in the intensely competitive retail sector. Companies with clear differentiation in variety, style and ambience have sharp growth and profitability of stores. A further learning from the highly, competitive retail sector is that competitive advantage is hard to sustain and retailers that was successful the previous decade have often been displaced by rising stars. (Grant, 2005)

Even if the technical change in mature industries like the textile industry is low, these industries can still be as innovative as emerging industries. The pressure from competition and the limited opportunities for technology-based advantage create drive for innovation in other areas of competitive strategy. Grant (2005)

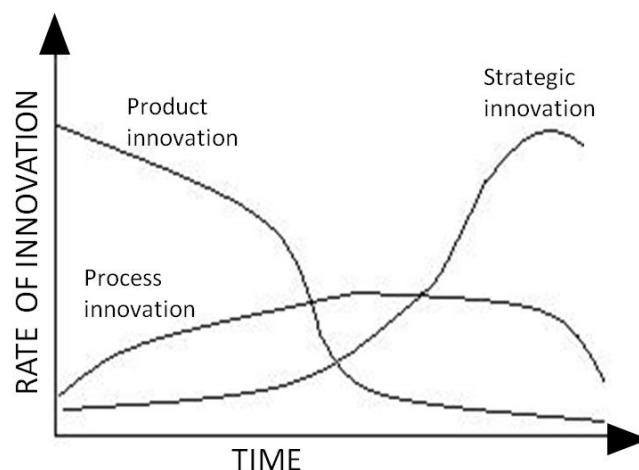


Figure 10. Innovation over the life cycle; from technological to strategic innovations (Grant, 2005)

calls this *strategic innovation*, and it becomes dominant when product and process innovation slows down (see Figure 10). Strategic innovation requires new and unique strategic initiatives that are difficult to apply with systematic and analytical approaches. However, strategic innovation may result from value chain analysis and from redefining markets and market segments. Embracing new customer groups or adding products and services that perform new but related functions can be a part of a strategic innovation. (Grant, 2005) The textile industry is subject to strong pressure in a fast-changing business environment due to two groups of factors: market volatility and strong competition worldwide. Therefore textile manufacturers have to consider carefully when and how to innovate. (Natalia & Ines, 2007)

After this section outlining the textile industry, the reader should understand the Chinese importance of the global textile industry. The textile value chain has several different processes where producers can choose to be vertically integrated or only own one of the processes. Furthermore, the textile companies' dependence on cotton and the material's large environmental impact are described. It is of uttermost importance to continuously innovate because of the strong competition worldwide. The focus is mostly on strategic innovations, such as identifying new customer groups or differentiating the value chain.

2.2.6. Sourcing Strategies in the Retail and Textile Industry

The following section is a discussion of some sourcing strategies that exists in the retail and textile industry. It contains three examples of companies that have implemented very different sourcing strategies and what the strengths and weaknesses of these particular strategies are. The aim is to give the reader a general overview of strategies that are currently used in the sector. The section will be used as a benchmark to the IKEA case, thus, in Chapter 6 the sourcing strategies we outline below will be compared with IKEAs strategy.

The first case is Carrefour group, which is a French, internationally recognized consumer-goods brand. The company is the second company worldwide in the sector with a presence in 33 countries. Carrefour is operating the strategy of "*thinking globally, acting locally*" both regarding the customers and the supply side of the company. (Cambra-Fierro & Ruiz-Benítez, 2011) The Carrefour Group is working with a very large number of suppliers in order to lower the prices and provide the customers with a large range of products. The firms has 12 900 suppliers only in Spain, one of their focus markets in Europe, which illustrates how large the supplier base is worldwide. When Carrefour expands to new markets they adapt the sourcing strategy to the local market. In Europe Carrefour uses a centralized sourcing strategy, however when Carrefour opened in China they adopted a decentralized warehouse strategy. One of Carrefour's key success factors when they expand globally is the complete adaption of the stores, the management culture and the products to the local environment. In China the local store managers and department heads are responsible for the product selection and vendor management and each store are negotiating prices directly with the local suppliers. (Cambra-Fierro & Ruiz-Benítez, 2011).

The Hong Kong-based textile agent Li & Fung also has a sourcing strategy of working with a large supplier base, but in a different way. Li & Fung is a successful example of a supply chain integrator that offers an integrated value proposal of design, purchasing and logistics for a complete line of products to customers that mainly are Western apparel companies. After the customer approves the design, the best manufacturer for the order is chosen from a large network of suppliers. Compared with Carrefour that always try to find the lowest possible price from temporary suppliers, Li & Fung works closer with their suppliers and always make sure to have about 50% of the supplier's turnover to ensure being a preferred customer (Van Weele, 2010). Li & Fung also supply all necessary raw materials to the manufacturer. Due to its scale, Li & Fung can purchase large volumes and get better prices and qualities for their raw material than individual textile players can. They

can also gain from its scale when it comes to shipment and transportation since they can consolidate deliveries to different customers. Because of their integrated way of working they can lower costs with about 40%, compared to if the department stores would do the purchasing themselves. What is essential in their business model is the position of supply chain director and their success factor is the strong position in the customer-supply network, supported by advanced information technology and creative entrepreneurship. (Van Weele, 2010) Victor Fung, one of the owners of Li & Fung claims *"What we do is close to creating a customized value chain for each customer"* (Magretta, 1998)

Another Hong Kong-based apparel company is Esquel, who are working with a completely different sourcing strategy. They are a leader in producing premium cotton shirts and their customers are some of the world's best known brands including Tommy Hilfiger and Polo Ralph Lauren (Peleg-Gillai, 2006). Instead of working with a large supplier base as Li & Fung and Carrefour, Esquel is working with a completely vertically integrated supply chain. It started as a trading company, buying garment and fabric from various companies in China, but the striving for high quality gradually made them integrate backwards. The specific needs for quality, reliability and short lead times could not be satisfied from existing supply partners. They expanded its business to range all the way through the textile supply chain, from cotton farming to retailing. Esquel made a strategic decision to focus on quality, product development capability and speed-to-market rather than cost. By having a vertically integrated supply chain Esquel ensures the highest quality, shorter cycle times, better control of operations and improved response time to new trends. Further, the vertical integration helped the firm to better absorb fluctuations in cotton prices compared to smaller companies and yarn manufacturers. It also improved the companies R&D capabilities and allowed new ideas to be explored throughout the supply chain. The challenges with vertical integration have been the coordination issues, higher financial burdens, increased operating costs and an inflexible capacity. (Peleg-Gillai, 2006)

Before we summarise the essential points from the cases presented above, one detail about Esquel's supply chain will be discussed further. Esquel have most of the value chain in Southern China, but cotton farming, ginning and most of the yarn spinning is located in Xinjiang. (Peleg-Gillai, 2006). For the present study Esquel's involvement in the Xinjiang region is of particular interest, since IKEA is considering to source textiles from this region. Xinjiang is one of few regions in the world where the highest cotton quality is grown and Esquel wanted to secure the majority of their cotton supply by establishing good relationships with the farmers. They organized training to ensure that the cotton was grown according to the company's specifications. They also tried to make a positive impact on the society by investing in schools and libraries. Furthermore, they invested in organic farming and water system innovations to solve the problem of scarce water resources. Esquel has most of their spinning in Xinjiang because of the closeness to raw material and the low electricity costs. (Peleg-Gillai, 2006) Esquel's involvement in Xinjiang will be further analysed in Chapter 6 in order to understand how an involvement in Xinjiang can be managed to give the highest benefit for IKEA.

What has been discussed in this section is how different firms in the textile and retail sector apply different sourcing strategies. Carrefour Group is mainly focusing on having a local sourcing strategy with a large range of products and the lowest prices. Li & Fung and Esquel are two apparel companies acting in Asia with completely opposite strategies. Esquel are fully vertically integrated and are focusing on the highest quality, innovative product development and short lead times. Li & Fung are instead working in the middle of the textile value chain, as a spider in the net. With their large supplier network, their consolidated logistics and purchasing of raw material in large quantities, they can supply their customers with apparel to an outstandingly

low price. At the end of the section Esquel's presence in Xinjiang was described in more detail since the present study will focus more on this specific region.

After the literature chapter the reader should have an understanding of why global sourcing is important for multinational firms. In an increasingly complex, globalised world, a company's sourcing strategy is changing from a pure cost issue to something on top of a company's agenda that can give the firm a strategic competitive advantage. Since the textile industry is a mature industry a key success factor is cost advantage. The retail cases will be used as benchmarks when IKEAs textile sourcing strategy is analysed in the dissertation.

SUMMARY - LITERATURE

- Global sourcing is becoming increasingly complex. Today the competition is between supply chains, not companies, and there is a shift towards developing long-term relationships with a few key suppliers
- Internal strategic issues involve identifying a company's capabilities and resources, in order to develop a set of core competences that provides unique value to the customer. External strategic question can be what products to make or buy. Another issue is to analyse the implications the national environment has on the firm's competitive advantage.
- The future of global sourcing emphasizes on the growing concern for the environment, the supply closer to demand and cost reductions in the entire supply chain
- China is the worlds' largest exporter of textiles. It is also the largest cotton producer and importer in the world. 42% of China's cotton is grown in the region Xinjiang
- Raw material stands for a large part of the cost breakdown in cotton textiles. The last years cotton prices have been fluctuating more than normal, which strongly affect textile companies. The textile value chain consists of a number of processes that require different resources such as labour, energy, water or large fixed investments
- The textile industry is a mature industry where cost advantage is a key success factor. Technical change is low in mature industries and innovation is instead on a strategic level. Depending on what strategic priorities a company has, different sourcing strategies are suitable

3. Method

In this section the purpose of the method is described and the chosen methodologies are outlined. In order to answer the research questions the authors have chosen a method that guides the researchers through a case study and a comparative design. The chapter argues for the chosen methodologies and also discusses the strengths and weaknesses with the chosen methods.

3.1. Research Strategy

The objective of the thesis is fundamentally to recommend IKEA what strategic sourcing option to make in China for the textile supply chain. As stated in Chapter 1, the study seeks to answer the following research question:

What is the optimal strategic sourcing option for IKEA in China that will lower costs and concurrently maintain or improve quality and sustainability of the home textiles, both with respect to the supply chain and innovative textile solutions?

To be able to answer the research question the study needs to use both a quantitative and a qualitative research strategy. How come that we use a mixed research method? Firstly, the research question requires a rigorous cost analysis in order to understand which sourcing option that is most competitive from a cost perspective. Hence, this cost analysis is employing a quantitative research strategy. Secondly, this recommendation is not only cost-based, other factors such as value, risk and strategic fit also needs to be taken into consideration, which requires a qualitative research approach.

In one way, applying both research strategies can be considered a *triangulation*. Triangulation implies that the results of an investigation employing a method associated with one research strategy are crosschecked against the results of a method using another research strategy (Bryman & Bell, 2007). In this study triangulation is deployed since the qualitative research partly is used to strengthen the outcome of the quantitative research. Hence, we are able to combine the specificity and accuracy of the quantitative data with the ability to interpret complex perceptions provided by the qualitative data. However, the research strategies cannot completely be seen as a triangulation since there are some qualitative data that simply cannot be analysed with a quantitative approach and vice versa. Thus, the two strategies also complement each other.

3.2. Research Design and Methods

A research design helps to set a framework for the collection and analysis of data in a study. Brymann and Bell (2007) outline five different research designs: cross-sectional, longitudinal, case study, experimental and comparative design. This thesis employs a case study design as well as a comparative design.

A case study entails the detailed and intensive study of a single case, which in this study is IKEA. What distinguishes a case study is that the researcher tries to find the unique features of the case. In other research designs like the cross-sectional design they are concerned with generating general research that can apply regardless of time and place (Bryman & Bell, 2007).

In this report the case study is chosen since it seems most appropriate given that it allows in-depth examination of questions of the type “How?” and “Why?” These questions are important to ask in order to fully understand the IKEA sourcing strategy and to get an in-depth understanding of the Xinjiang region. Hence, the case study design is qualitative. The problem with this method is the focus on the unique case of IKEA without much comparison with other retailers. Therefore, we cannot claim to have much external

validity or generality in the case study. However, the case can be seen as a typical case that can be used to represent a certain form of organisation (e.g. multinational retailer in the textile industry operating in China).

Furthermore, the thesis also employs a comparative research design. This means that the design entails the study using two or more contrasting cases. It can be seen as two or more cross-sectional studies carried out at the same time. The cross-sectional design is defined as the collection of data on more than one case at a single point in time. (Bryman & Bell, 2007) When evaluating the competitive advantage of producing textiles in the Xinjiang region for IKEA, it is important to understand how beneficial this sourcing option is compared to other sourcing alternatives. Thus, we compare producing textiles in Xinjiang with IKEAs existing supplier regions in China and other inland regions that are supposed to have cost advantages. By gathering the same indicators from several different regions at the same time, the comparative design allows us to understand the differences between the regions. This design is more quantitative with a focus on costs in the different regions.

The advantage with the chosen case study design is that the authors can get a deep understanding of the unique IKEA case with several qualitative interviews. Simultaneously, the comparative design makes it possible to compare the different textile regions in China, which is a study with external validity that is important for other businesses with interest in the future Chinese textile industry.

3.3. Sample Selection

For the interviews in both the case study and the comparative design non-probability samples have been chosen. This essentially means that some units in the population are more likely to be selected than others. The reason for using a non-probability sample was the explorative nature of the thesis where the aim was to explore the opportunities for IKEA in Xinjiang, rather than making a statistically correct investigation of Xinjiang. The sample chosen for the study included management at IKEA, co-workers at the textile department at the trading service office in Shanghai, management at the investment textile zones in Xinjiang, representatives of textile producers in Xinjiang, IKEA textile suppliers, foreign investors in Xinjiang and management consultants performing an investigation for IKEA about inland regions in China. A detailed list of the interviews can be found in Appendix A.

The thesis relied on purposive sampling, convenience sampling and snowball sampling:

- **Purposive sampling** means that the sample is chosen based on the interviewees ability to contribute to the subject. (Bryman & Bell, 2007) The IKEA respondents were chosen based on their expertise in the different areas of interest for the study. Similarly, the interviewees from the investment textile zones and company representatives in Xinjiang were also a purposive sample.
- The sample of textile producers in the different regions and IKEAs textile suppliers were chosen based on **convenience sampling** and importance for IKEA (purposive sampling). Convenience sampling means that the sample is convenient to access. The regions of interest for the study were given by IKEA and through another internal project (Better cotton) IKEA already had established relationships with textile producers in Xinjiang. The IKEA suppliers were often interviewed in combination with visits that had multiple purposes for IKEA, but if additional information was needed the suppliers could also be invited to the office or answer questions by e-mail.
- **Snowball sampling** means that a respondent recommends the interviewers to talk further with other suitable respondents that possess more valuable information (Bryman & Bell, 2007). This was foremost used within IKEA later on in the study. When talking to a person in the textile team they recommended us to contact someone in IKEA textile globally with complementing expertise. This was also true for the interviews with the management consultants.

One of the limitations with the sample selection is that due to the non-probability sampling the study is not generalizable. Additionally, more interviews were conducted in Xinjiang than in the other regions, which can give an unfair advantage to Xinjiang since the respondents often give a positive view of their own region.

One of the strengths with the sample selection is that there are many different types of respondents, from textile producers and government workers to IKEA employees all over the world. This gives diversity to the study with several different perspectives. For example, a textile manager at IKEA in China has foremost a national perspective of how the business should develop, while a textile leader in IKEA of Sweden could provide the authors with a more global perspective of future opportunities. Another strength with the sample is the large number of interviews that were conducted. In total, the authors did 39 interviews. Furthermore, even if the purposive sampling is not statically correct, this gives the authors in-depth interviews with exceptionally competent respondents within their area. This increases the credibility and depth of the study.

Despite the limitations in generalizability, the sample selection is large with high quality respondents, which makes us confident that the study has strong validity and reliability.

3.4. Data Collection

The data was collected in four different settings. First, secondary data was collected throughout the project with majority of the sources from databases, statistical yearbooks and Internet. Second, the authors were collecting data by conducting a case study, having a unique opportunity to be a part of the textile trading team in Shanghai during six months. This involved unstructured, open interviews to collect information from IKEA employees. Third, semi-structured interviews were deployed when interviewing textile producers, textile organisations and local governments. Fourth, when gathering data from potential suppliers in Xinjiang to request for quotations, survey questionnaires were used.

3.4.1. Case Study

In the empirical chapter we will in the beginning state that if no other source is mentioned, the empirical chapter is based on information from the case study the authors conducted during six months at IKEA Trading office in Shanghai. The case study we refer to is the one we describe here. We were working 40-hour weeks like the employees in the textile trading team which lead to that extensive information was gathered during daily conversations and textile meetings. It was easy to ask informal questions to anyone in the team. Additionally, approximately 25 open interviews were conducted in IKEA where the observers used interview guides to have some guidelines. The interviews were foremost a tool to collect data regarding the internal factors such as strategic goals, IKEAs strengths and weaknesses in textile sourcing and which products and processes to focus on in the study. Every third week the latest findings were presented for the trading management team in Shanghai of about seven persons. These presentations led to additional input and useful information to the study. Furthermore, the presentation meetings were a guideline for how the authors should move forward in the investigation.

One of the main strengths with the case study is that the authors could gather extensive amount of data and IKEA gave all the resources we needed, both in terms of time and money, in order to perform the study. The IKEA employees were willing to give a lot of their time to contribute to the investigation, which gives a strong trustworthiness to the study. The authors quickly realised this willingness to participate in the study and always took the opportunity to ask employees when needed. Another strength is that it is possible to go into details of the case company and its' textile sourcing. However, a weakness might be that since the IKEA employees are so focused on the details in their daily work, it is difficult for the authors to step back from the details and get a more general perspective. This requires further external interviews and additionally

benchmarking with other retailers to understand what makes them competitive and what makes IKEA unique.

3.4.2. External Interviews

Most of the semi-structured interviews were made in Xinjiang at meetings with different textile players. In total about twelve interviews were conducted in Xinjiang. The semi-structured interviews allow flexibility in terms of leaving out irrelevant questions to some participants and also probing for more answers when the interviewers want to know more (Bryman & Bell, 2007). When constructing the semi-structured interviews, the questions were focused on the external factors that can influence IKEAs choice of sourcing option. The questions were designed to give the researchers information about the cost advantages and disadvantages. Moreover, the interview questions focused on qualitative criteria such as collaboration with other textile players, environmental and political factors. An example of a semi-structured interview to state officials responsible for industrial zones can be found in Appendix B.

A difficulty with the semi-structured interviews was that the respondents were only speaking Mandarin. Hence, interpreters were needed throughout the two weeks field trip in Xinjiang. A risk with using interpreters is that they give less nuanced answers and therefore the authors might miss important information. Furthermore, three different interpreters at different points in time were used which can give a poor inter-observer consistency. Something questionable is if the respondents have been giving correct answers in the interviews. The respondents responsible for the different industrial investment zones in Xinjiang were eager to give us a highly beneficial perspective of their zone that sometimes seemed idealised. If IKEA would invest in their zone this would contribute to a large increase in the zone's industrial output value. This lack of credibility parallels to weak internal validity, which Brymann & Bell (2007) describe as the match between the researchers' observations and the theoretical ideas they develop.

A weakness in general with the data collection is the translation issue. Some secondary data was only in Mandarin and as mentioned above, some interviewees only spoke Mandarin. Simultaneously, the authors made survey questionnaires that needed to be translated from English to Mandarin by someone from IKEA. The translation was time-consuming and perhaps it gave rise to some limitations of internal validity.

An advantage with the data collection is the fact that the authors could return to the interviewees with more questions during the period in China if something was unclear or if information was missing. This time to return strengthens the trustworthiness of the data collection. Furthermore, almost all meetings and interviews were conducted face-to-face which seems like the most reliable way to gather data in this study. If the authors wanted to interview an IKEA supplier the respondent was either invited to the office in Shanghai, or the interviewers were given resources to travel to the supplier. The supervisors of the study in IKEA dedicated the project a lot of time, which strengthened both the data collection and analysis.

Considering the circumstances that the authors in particular wanted to answer the research question with IKEA China in focus, the data collection chosen with an in-depth case study was the most suitable for the project.

3.5. Data Analysis

The data analysis can be divided in a qualitative and a quantitative analysis. The qualitative case study was analysed continuously during the research by using grounded theory. Grounded theory is a method where data collection, analysis and eventual theory stand in close relationship to one another and the process is iterative (Bryman & Bell, 2007). To get an overview of the extensive data gathered, the authors created SWOTs for the different sourcing options that were continuously updated in an iterative process. The advantage with grounded theory is that the method is good at capturing complexity of contexts as action unfolds. Something that can be difficult with grounded theory is to transform data collected to general concepts and categories. (Bryman & Bell, 2007)

The cost analysis mentioned above was of a more straightforward quantitative nature. All cost variables of producing textile in 2011 were gathered for each region. The cost analysis was longitudinal since the case was concerned with how a situation is changing over time. The potential IKEA factory would not be in operation until 2016. Thus, all cost variables were given a projected future development for each region. Some variables had a relatively constant growth in the past and therefore we chose to extrapolate them into the future. Other variables were more volatile and uncertain and in this case we chose to investigate reports that discuss the future for these utilities and thereafter create likely scenarios. Several sensitivity analyses were conducted to illustrate the outcome of the different scenarios. We decided to make a quantitative sensitivity analysis since it gives credibility. Despite changes in scenarios, a similar final result was obtained which gives the decision-makers a solid base in order to be able to make a decision.

The strength of the data analysis method is that the sourcing options were considered from a both qualitative and quantitative perspective. However, the problem with the chosen qualitative data analysis is that it is difficult to replicate since the evaluation is to some extent subjective. The researchers still believe that this data analysis method is the most appropriate for this study.

3.6. Reliability and Validity

The reliability of the data relates to the repeatability of the results. Regarding the qualitative case study it is difficult to replicate the study. The circumstances, both internally in IKEA and in the external environment, are in a dynamic change, which makes it impossible to replicate the study in a later period. Hence, the external reliability is weak.

The different Chinese regions' competitiveness that was based on the quantitative analysis has high generality. This part of the study is something other retailers also can use when deciding for new locations within textile. The comparative design has quite high replicability. Since it is clear who the respondents are, which investment zones that are investigated, the questions of the semi-structured interviews and how the analysis of the data was conducted, it is fairly easy for another researcher to replicate this part of the study.

What the researchers are trying to do is to build up a method framework that is a support to be able to answer the research questions. By outlining the method and discussing the choices, this helps us to understand the strengths and weaknesses with the study. One of the main strengths is the six months case study in China that gave an extensive, profound understanding of IKEA textile sourcing business. Another advantage is that despite the fact that the case study was conducted at IKEA there are other retail actors present in China that can learn from this study because of the comparative design. Especially when it comes to the business challenges in an increasingly expensive China and what the different sourcing options are to consider when tackling these challenges. The study applies the IKEA case in a general global sourcing perspective, and

thereby the report seeks to inform scholarly knowledge in the field of supply chain and innovation management.

SUMMARY - METHOD

- The research strategy is chosen based on the research questions the study will answer. The researchers choose to deploy a mixed research method with a quantitative and a qualitative method, which is a type of triangulation
- A case study design is chosen to be able to get an in-depth understanding of IKEAs sourcing strategies and options in China. The comparative design where the different regions in China are compared has higher generalizability
- The sample selection is large with high quality respondents, which gives the study high internal validity and reliability. The external validity is weak since it is a non-probability sample
- The data collection with multiple interviews and an in-depth case study is rigorous and suitable for the purpose of the study
- The strength of the data analysis is that it is considered from a both quantitative and qualitative perspective where the quantitative analysis has high replicability

4. Theoretical Framework

Based on the previous research in the field this chapter will outline the theoretical framework that will be applied to analyze the empirical data. The theoretical framework consists of four sub-frameworks. First, the focus is on the internal business strategy that considers the firm's performance objectives, core products and core processes. Second, an external framework is outlined that is applied when evaluating the location options, both qualitatively and quantitatively. Third, the sourcing options are evaluated in a SWOT that takes into consideration the outcomes of both the internal and external frameworks. The sourcing options are illustrated in a matrix where the most optimal sourcing option is chosen. Finally, the most optimal sourcing option is further evaluated in a make or buy-framework that considers the strategic fit with the company.

4.1. Internal- The firm

When deciding *how* a firm should compete it is essential to understand what the firm's customers expect from the company and what factors they value highly. These competitive factors lead to that the company's operations need to excel at certain performance objectives. The firm can strengthen its value chain based on those performance objectives. Hence, certain core processes can be identified in the value chain. Furthermore, the core products of the company are decided based on the internal analysis of volumes, growth and relevance for the firm.

4.1.1. Performance Objectives

Five basic competitive strategies exist in the business environment that shapes planning and decision making; cost, quality, speed of delivery, flexibility and dependability (Stewart, 2001). Different emphasis on the competitive factors is what form value for the customers and the company seeks to satisfy customers by developing the performance objectives. (Slack et. al, 2010)

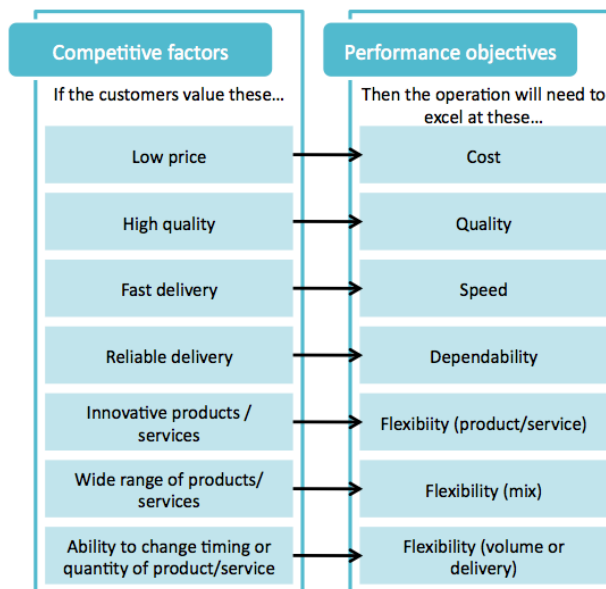


Figure 11. The competitive factors the customers value lead to that the firm needs to excel at certain performance objectives (Slack et al, 2010)

A particularly useful way of determining the relative importance of competitive factors is to distinguish between 'order-winning' and 'qualifying' factors. Order-winning factors directly and significantly contribute to win orders. Qualifying factors, on the other hand, may not be the major competitive determinants of success, but are those aspects of competitiveness where the performance has to be above a particular level to be considered by the customer. Performance below this 'qualifying' level of performance will possibly disqualify the company from being considered by many customers. (Slack et. al, 2010)

The sourcing strategy of a company should be in line with the competitive factors their customers value. In the final part of the literature chapter, three company cases were presented, each one representing a different sourcing strategy in the textile and retail sector. What can be further understood is the companies' focus on different performance objectives. Esquel has a clear focus on quality and speed, and this is reflected in the sourcing strategy with the complete vertical integration. The vertical integration all the way to the cotton farm enables them to assure that raw material with the best quality is used. The Carrefour Group, on the other hand, is mainly focusing on the cost and flexibility (mix) performance objectives. To be able to give their customers the large variety of products to a low cost price, they have a sourcing strategy where they use a very large supplier base and strongly adjust to the local markets. Li & Fung is acting as a supply chain integrator with a very successful strategy focusing on the cost objective. The company is the spider in the net that connects a large base of retailers with a large base of suppliers. In the analysis we will outline the most important performance objectives of IKEA and how they play a valuable part when deciding which sourcing options to pursue in this project.

4.1.2. Products and Processes

It is essential to consider the performance objectives when evaluating where in the textile value chain IKEA should compete. Furthermore, the processes in the value chain of interest will be evaluated based on the competitiveness of China and the level of control in the value chain of cost and raw material traceability. Something else that should be taken into consideration is what level of economies of scale the production can give. IKEA needs to find a balance between these factors. If IKEA is involved early in the supply chain the control of the cotton will be strong, however, these are the processes the furthest away from IKEA's current business and competences. On the other hand, if IKEA is involved late in the supply chain, the control of the cotton is lost and additionally after the printing and dyeing it is difficult to gain economies of scale since the white fabric is quite standard but there is a wide range of prints and colours.

When deciding which textile products to consider in the sourcing options, this can be seen as a mix between an internal and external decision. It is an external decision in the sense that only products that are competitive in China should be considered. It is also of importance to consider which products that are sourced in high volumes in IKEA China and have standardised constructions. These products can be seen as the core textile products for IKEA China and this analysis is of a more internal nature. As mentioned in the literature, the core products of a company are usually linked with the core competences of the organisation.

With a framework that considers performance objectives, processes and products, we have a fundamental understanding of *how* the company should compete in order to gain a competitive advantage over rivals. The chapter will now outline the external framework in order to be able to deepen the insights in *where* the company should compete.

4.2. External – the Environment

In this study there is a need to evaluate and compare the different regions in China. First of all, the comparison is done in different levels, from country to region and finally site-level. Second, the criteria that are evaluated are both quantitative, such as utility costs, and qualitative, such a social and environmental factors. Third, the regions need to be compared over a longer period of time since their competitive advantage will change with time.

4.2.1. Location Analysis

International plant location decisions have basically three major characteristics; there are multi-level decisions, multi-criteria decisions and multi-periodic decisions. Multi-level refers to that the strategic location decision is in three levels; what country to chose, what region in that country and what site in that region. (Uncu, 2003) For this study the country level was already decided in the scope of the project and we will focus on sourcing alternatives within China. The strategic decision is instead what region in China that is the most beneficial for textile sourcing. Thereafter interesting sites within those regions was evaluated in the project but this will only be briefly mentioned in this report.

The multi-criteria decision indicates that there are many factors that will affect the location decision, such as transportation, costs of material and labour costs. The costs for these different criteria need to be weighted since they have different importance (e.g. labour has a larger impact on production cost than water). Hence, in this study the researchers have chosen to compare the operational cost savings for producing one meter of fabric. This analysis is taking into account the different usages of the water, labour, electricity etc. After the operational costs have been compared, we also need to consider raw material and transportation costs. The cost of producing one unit in one region is compared with producing the same unit in another region. Thereafter, the cost savings for each region can be compared.

When it is an international decision, not only cost and profit factors are of interest, but also more qualitative factors play a crucial role such as environmental, political and social criteria. The effect of these factors is depending on if the decision is taken on a country, region or site level. (Uncu, 2003)

To analyse the multi-criteria factors some kind of system or framework for organizing the information is needed. One example is the PEST analysis where the location factors are classified by source, into political, economical, socio-cultural and technological factors. (Grant, 2005) Some analysts have to this framework added analysis of environmental and legal factors and formed the

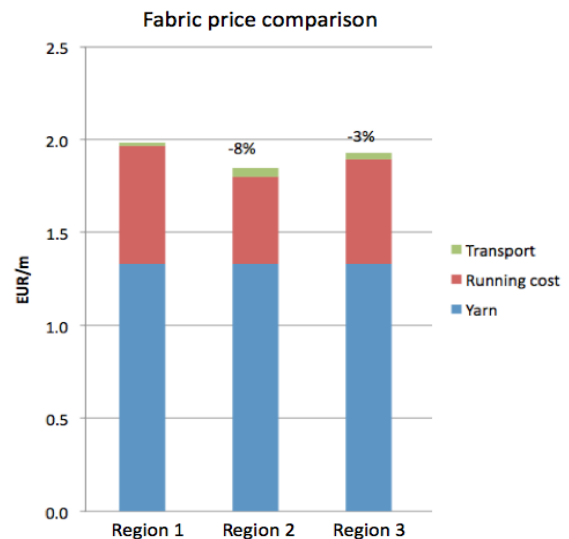


Figure 12. The cost comparison will be done by comparing operational cost of producing one meter of fabric (case study at IKEA, 2011)

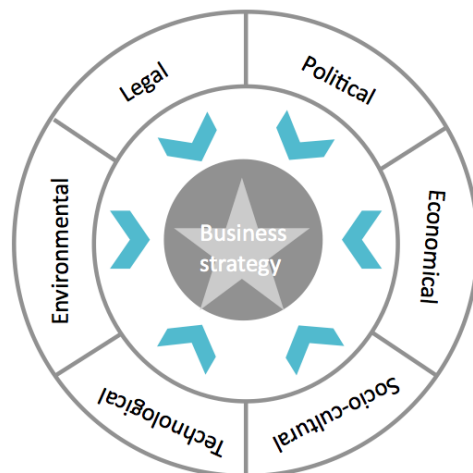


Figure 13. Location factors in the PESTEL analysis that may affect the business (Cook, 2005)

mnemonic PESTEL. (Cook, 2005) The political factors relate to government or constitutional policies that may affect the business. Economical factors relate to the economy as a whole. For example the strength of stock market can be interesting because of the impact it has on the type of investment that will be made. Socio-cultural issues refer to factors such as class, age and gender as well as culture and diversity issues. Environmental issues are becoming more important and CSR issues are increasingly higher on the public's agenda. The legal environment that can affect the business are for example working time directives and minimum wages. (Cook, 2005) The prerequisite for effective environmental analysis is to distinguish the vital from the merely important. (Grant, 2005) In this report the PESTEL framework will be used with an IKEA perspective. It will outline the location factors of strategic importance for IKEA sourcing in China.

The last characteristic for an international location decision is multi-periodic and refers to that the key factors may change over time in today's dynamic environment. Factors such as political stability of the country or economical factors like growth rate and inflation rate may change over time. The decision-making should be conducted considering an extensive period of time. (Uncu, 2003) Hence, the cost savings in each region need to be analysed over a period of time. This is especially important in the Chinese business environment where the price development is fast and differs depending on region.

To sum up, the multi-levels are analysed according to the relevant multi-criteria with a both quantitative and qualitative perspective, taking into consideration the multi-periodic issue.

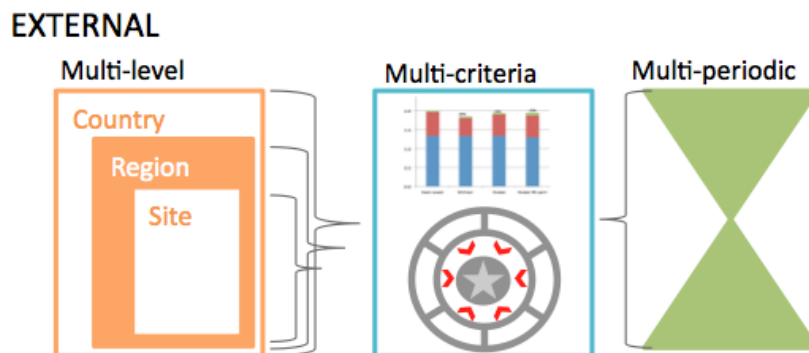


Figure 14. Framework for the external analysis; multi-level, multi-criteria (both qualitative and quantitative) and multi-periodic (Uncu, 2003)

4.2.2. SWOT and Opportunity Matrix

When the sourcing options have been analysed from both an internal firm perspective and an external environment perspective, the results are evaluated together in a SWOT.

The SWOT framework is a widely used approach for strategic analysis. It classifies the various influences on a firm's strategy into four categories; strengths, weaknesses, opportunities and threats. The first two relate to the internal environment, while the last two relate to the external environment. (Grant, 2005) In this study, the SWOT considers both qualitative and quantitative aspects.

IKEA uses the SWOT framework in order to get clarity in areas they want to investigate and to enable transparency and problem solving in all their processes. Together with the SWOT framework an opportunity matrix is often applied. The matrix is used to analyse different strategic alternatives by plotting opportunities in relation to each other, valued according to the axis 'Benefit potential' and 'Implementation effort'. In the analysis of this rapport the opportunity matrix will be used in order to analyse the potential and implementation effort of possible sourcing options in China for IKEA to consider.

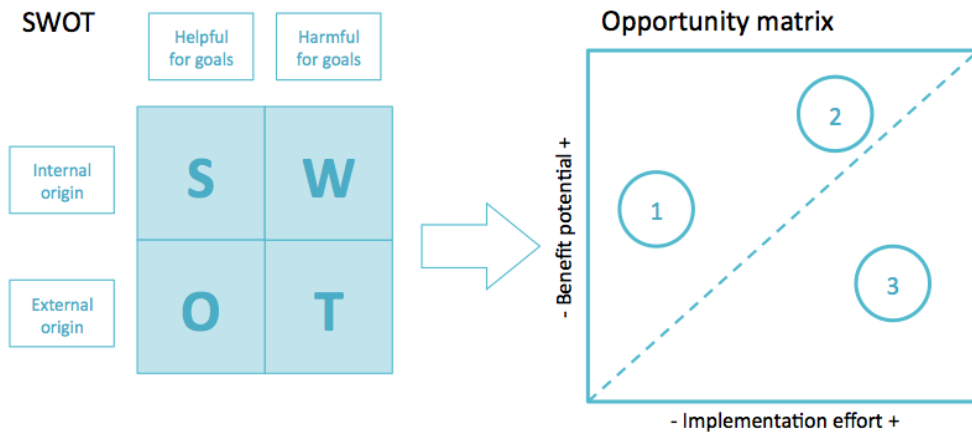


Figure 15. SWOT analysis and the opportunity matrix (Grant, 2005)

After the SWOT and opportunity matrix analysis, the sourcing option that is considered the most optimal alternative will be further evaluated in the fourth and final phase of the framework.

4.2.3. Vertical Integration or Outsourcing

When the decision is taken of which sourcing option that is most optimal, it is vital to understand how the firm should pursue this sourcing option in order to gain the most competitive advantage. Hence, the level of vertical integration in the value chain needs to be evaluated by analysing the strategic importance of the capability.

Making decisions regarding the level of vertical integration is a difficult matter. A guideline can be to consider the outsourcing matrix (Figure 16). According to the matrix, the decision to outsource is dependent on two variables, i.e. the strategic importance of a competence to the firm and the level of competitiveness relative to suppliers. Clearly, when a company has a high level of competence relative to external suppliers, vertical integration should be considered. (Van Weele, 2010) Moreover, the firm needs to consider if the activity in focus is a core business that will enhance its core capabilities, as discussed earlier in the literature. The company should integrate those activities that are part of its present or future core capabilities. No company can do all things well. The activities that are not part of the core competences should be strategically outsourced. If problems at one crucial stage threaten production and profitability at all other stages this is a large risk and it is beneficial to vertically integrate. (Hayes, 2005)

The level of competitiveness relative to supplier can be divided into different factors. Depending on industry and company, the factors of importance can differ. The authors have chosen factors that are important in the textile industry and for IKEA. The factors are cost efficiency, quality and lead time, flexibility in the product mix, product development, financial resources and finally experience and textile knowledge. In the same manner, the strategic importance of competence is divided into sub-factors. These are: criticality for future

growth, category importance, criticality to meet performance objectives, difficulty for competitors to imitate and risk of substitution.

In Section 6.5 the authors will apply the outsourcing matrix to the IKEA project. First, each sub-factor needs to be weighted between 0,0 and 1,0, so that the sum of the weights is 1,0. The reasoning behind the weighting should be that the factors that are most important in this study should have the majority of the weighting. The factors on the y-axis, competitiveness relative to supplier, can to some extent be related to the performance objectives outlined above. The performance objectives that are important for IKEA should also have an important weighting in the outsourcing matrix. A ranking between 1-5 will be applied to each factor depending on the actual performance compared to suppliers.

Moreover, the strategic importance of competence considers how important a specific competence is in relation to other competences in the company. As mentioned in the literature, core competences of a firm are usually beneficial to have vertically integrated. The factors on the x-axis will be weighted according to importance for this study. In the analysis, we will compare the strategic importance and characteristic of the textile competence in IKEA compared to other competences in the firm.

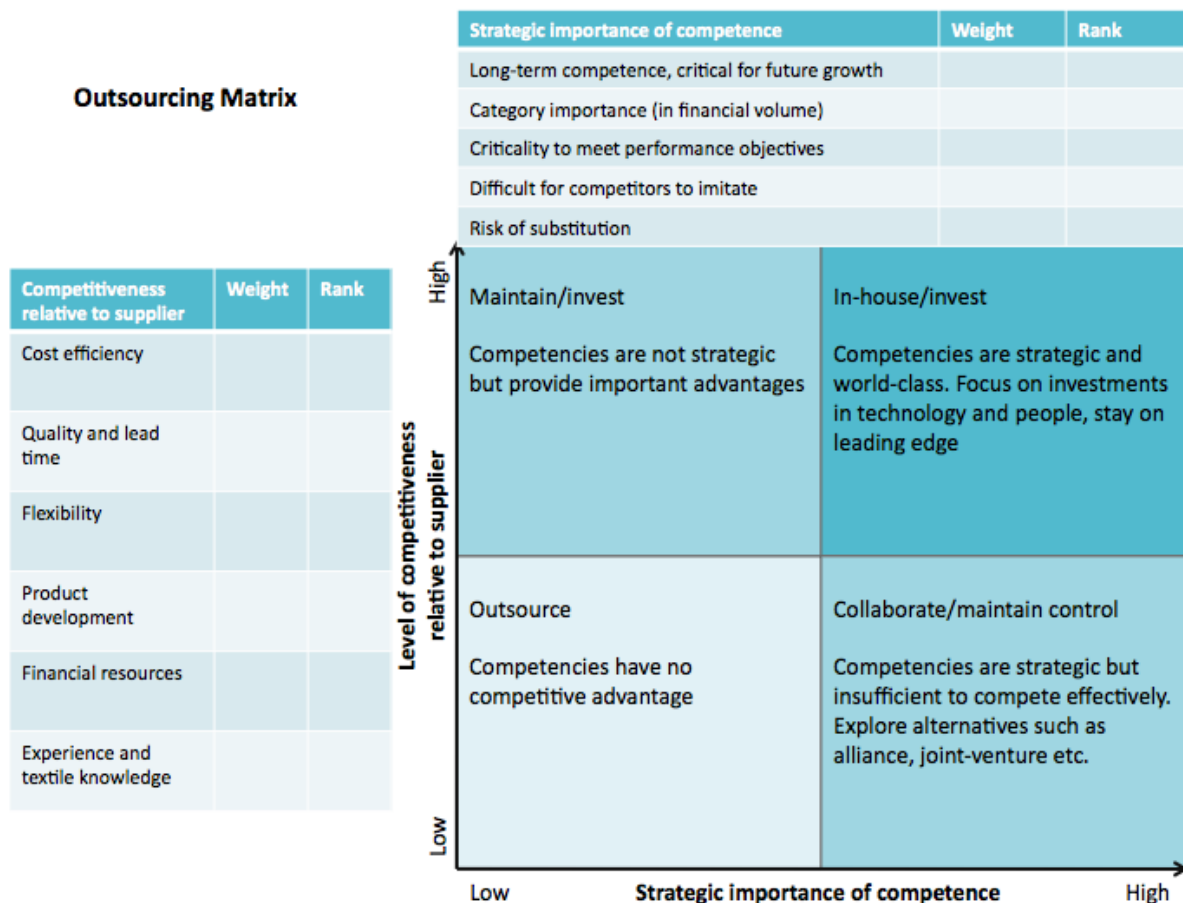


Figure 16. The outsourcing matrix is used to evaluate the optimal level of vertical integration (Van Weele, 2010)

When the two criteria in the outsourcing matrix have been evaluated there are some additional factors that need to be taken into consideration that regards the characteristic of the value chain. Characteristics that can

influence the make or buy-decision are the coordination requirements in the supply chain, the level of transaction costs, the differing scales in the value chain and the need for flexibility.

Coordination Requirements. The firm should assess the coordination requirements that are needed with the supplier. Where the critical information is tacit, advanced information technologies do little to solve coordination problems. Tacit information often requires extensive face-to-face communication on an ongoing basis and this raises the investment in a supplier relationship. In these situations vertical integration is favourable where a company can create specialised organisational processes and structures to facilitate coordination. Vertical integration also facilitates the learning that occurs through repeated interactions. (Hayes, 2005)

Transaction Costs. The benefit for not being vertically integrated is the ability to switch suppliers, which creates flexibility and puts pressure on the supplier to perform. However, in some industries the switching costs are high and investments are made that are only valuable for one specific relationship. As we mentioned in the literature, high transaction costs make vertical integration more favourable. (Van Weele, 2010)

Scales in the Value Chain. A small brewery sees little advantage with having a can production that requires a substantial investment and large volumes. The greater the dissimilarity between two different processes in the value chain, the greater the advantages with market contracts. (Grant, 2010)

Flexibility. If there is a need for entrepreneurship, flexibility and drive in the separate activities, there are large advantages of market contracts. Vertical integration may for example be disadvantageous in responding quickly to new product development opportunities that require new combinations of technical capabilities. (Grant, 2010)

We can summarise the influencing factors by posing them as questions to the firm regarding the characteristics of the vertical relationship.

- Is there a lot of critical tacit information that should be exchanged between the vertical activities?
- Do transaction-specific investments need to be made by either party?
- Are stages similar in terms of the optimal scale of operation?
- How great is the need for entrepreneurial flexibility and drive in the separate activities?

The critical issue for a firm is not to follow conventional wisdom, but to carefully evaluate strategic needs, its capabilities at different stages in the value chain and the characteristics of the vertical relationships.

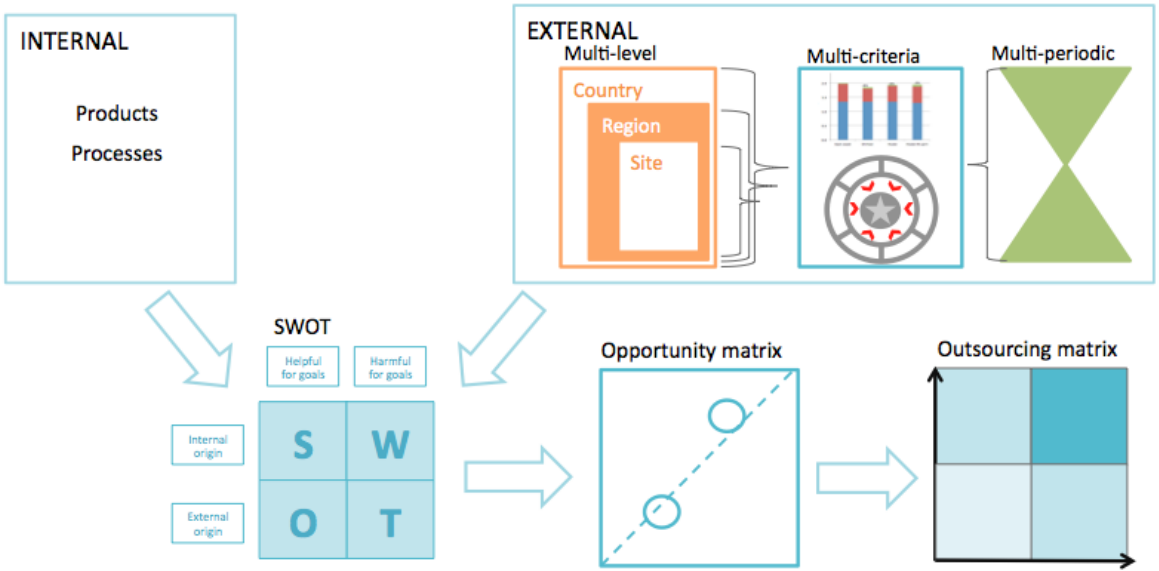


Figure 17. The complete theoretical framework that will be used in the IKEA study

The complete theoretical framework is illustrated in Figure 17. It can be seen as a process that will guide us through the analysis. First, the internal factors are outlined, including the core products and processes. Second, the external location analysis is conducted that will analyse the sourcing options from a multi-level, multi-criteria and multi-periodic perspective. After the internal and external analysis this will boil down to SWOTs of the two most promising sourcing options and thereafter they will be evaluated in the opportunity matrix. At last, the most optimal sourcing option will be further evaluated in the outsourcing matrix in order to decide a suitable integration level.

SUMMARY – THEORETICAL FRAMEWORK

- The supply chain of a firm is developed based on the performance objectives of the company.
- When deciding the location, this is based on quantitative and qualitative multi-criteria in an extensive period of time. An example of a qualitative multi-criteria framework is PESTEL.
- The SWOT framework is widely used for strategic analysis and takes into account both internal and external factors. Different SWOTs can be evaluated in an opportunity matrix.
- After having analysed the firm’s strategic needs, the capabilities in the value chain and the characteristics of the vertical relationships, the firm can decide the level of integration and ownership in the value chain.

5. Empirical Results

The empirical chapter follows the same structure as the theoretical framework, consisting of an internal perspective and an external perspective. The first part is the internal section that describes the characteristics and the strategic priorities of the textile sourcing at IKEA. It goes from broad description of IKEAs global sourcing towards a focus on the sourcing function of textiles in China. The reader is also introduced to the product categories that are sourced in order to understand the complexity of IKEAs sourcing. The second section of the chapter has an external perspective and reviews the development trends of the business environment in China with a focus on traditional or low-tech industries, and what the implications are for the textile industry. If no other source is mentioned, the empirical chapter is based on information from the case study the authors conducted during six months at IKEA Trading office in Shanghai. The information is confirmed by Joakim Hammar, Deputy Trading Area Manager China.

5.1. Textile Sourcing at IKEA

In this section IKEAs textile sourcing is described, including the most essential characteristics and strategic priorities. The sourcing function is described both at a global level and with focus on sourcing of textiles in China in order to give the reader an understanding of the internal situation.

5.1.1. Introduction to the IKEA Sourcing Function

IKEA Group is an international home product retailer that sells furniture, accessories, bathroom and kitchen items. The first store started in 1958 in Älmhult in Sweden and today the company operates 325 stores in 41 countries. In 2011 IKEA had 734 million store visitors (IKEA, 2011). The IKEA concept is to provide a wide range of functional, well-designed furniture at prices so low that as many people as possible will be able to afford them. The IKEA concept is the backbone to the strategic priorities that will be described in the following section. The IKEA vision is to *'Create a better everyday life for the many people'*. (IKEA, 2011)

Figure 18 describes the structure of the IKEA Group. In this report we will focus on the sourcing function, which is included in the area range strategy, product development and supply chain.

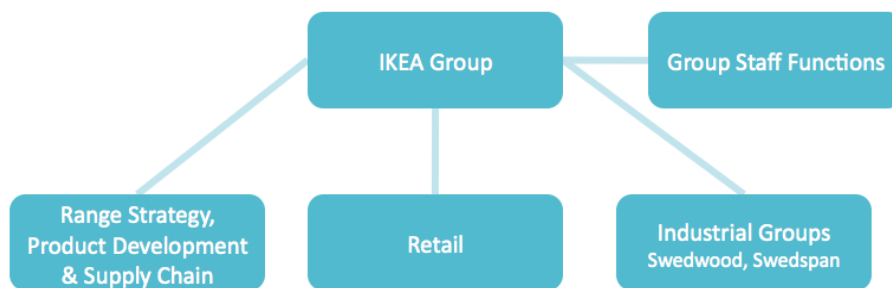


Figure 18. The structure of the IKEA Group (IKEA, 2011)

For certain categories IKEAs operations are vertically integrated. Swedwood and Swedspan are IKEAs fully integrated industrial groups that manufacture and distribute wood based furniture. The groups control the entire value chain from the management and operations of forests on long-term contracts, to sawmills, board manufacturing and furniture production. Swedwood and Swedspan have together over 50 production units in ten countries. (Swedwood, 2011) For other categories, such as textiles, IKEA works with suppliers. In total,

IKEA has 29 Trading service offices in 25 countries and suppliers in 55 countries (Datamonitor, 2011). The Trading service office in Shanghai is one of the largest in IKEA (Champagne, 2012).

The present study will discuss different sourcing options for the textile category at IKEA, but in order to give the reader a general understanding of IKEAs sourcing strategy an example will be given from a completely different part of IKEA. The firm is a major buyer of paper because of the IKEA catalogue that is printed and sold all over the world. In the 1980s IKEA started to get concerned about the environmental effect from their paper consumption. They therefore created a goal to print on paper free from chlorate, containing at least 10% recycled paper, which was not commonly used at that time. They contacted their suppliers for a request, but the suppliers answered that it was not possible to produce the quantities IKEA needed. IKEA decided to change to new suppliers that were more interested in trying to satisfy the new demands. The company was also in contact with Greenpeace, that was highly involved in a large project of mapping ongoing technical developments in the forestry industry and IKEA gained an extensive knowledge of the existing possibilities and production resources. They used the knowledge from large players in the forestry and printing industry to develop the new paper. The network of experts provided IKEA with knowledge about how resources could be recombined and developed. (Gadde et. al, 2010) This case shows how IKEA can act as a strong and powerful change agent; they can both direct the development in a specific way and speed up the process.

5.1.2. IKEA Product Categories

The IKEA range includes products for every part of a home (IKEA, 2011). This concept requires a very complex sourcing organisation, with knowledge and expertise in sourcing of many different types of products. In order to manage this complex sourcing efficiently the product range is divided into categories. Examples of categories are flatline, textiles, stainless steel, lightning and free range (plants, seasonal products etc). Each category has a global category team in Älmhult and purchasing teams in the different Trading service offices around the world.

The Trading office in Shanghai has a large team specialised in textiles, as a result of China's long history of textile production. The textile category is further divided into different product groups including for example upholstery covers, textile products, filled products, rugs and construction fabrics. Textile products include bed linen, towels, curtains etc. Filled products refers to quilts and pillows and is further divided into natural and man-made filled products, where natural filled products are filled with feathers and down, while man-made filled products are filled with polyester. Upholstery covers are textile covers of for example sofas and mattresses and construction fabrics are used in for example storage boxes. Within the textile category many different raw materials are used, but cotton is the most used one. Cotton is for example used in some of the bed linen, curtains, towels, upholstery covers and natural filled fabric. Most of the high range bed linens are already produced in China today since the Chinese cotton is price competitive for the high quality. (Yin, 2011) The fabric of the natural filled fabric is high in order to avoid the feathers from sticking through the fabric. Sub-suppliers to IKEA in China produce about 90% of the global volumes of the filled fabric. Apart from the competitive prices on higher quality cotton in China, another reason is that most of the down and feather filling is done in China. (Yin, 2011)

5.1.3. Strategic Priorities

Most IKEA products are designed to be transported in flat packs and assembled at the customer's home (IKEA, 2011). By doing this IKEA can have lower prices by minimizing the transportation costs and this is IKEAs most unique strategy. However, this is more applicable for wooden furniture than for textiles, since the properties of fabrics make them impossible to 'construct at home' and the package of a bed linen cannot be much flatter than any competitor's package. This is one of the reasons to why IKEA is facing a difficulty to

provide lower prices on textiles than competitors. Lowering prices on textiles is instead dependent on the sourcing of the textiles. How competitive different sourcing options are is dependent on factors such as supplier efficiency and scale of production, as well as the utility and raw material cost in the region where the textiles are produced. The wood based flatline¹ can be seen as IKEA's core business, but textile is also an important category. Textiles are included in all parts of a home, and IKEA's business concept is to have a range that includes products for every part of a home.

IKEA's targeted customers are the many people, which refer to people in all ages, all nationalities and all social classes. However, there is a difference between the many people and all people, and the target group can be illustrated as in Figure 19. There will always be some people who do not have the possibility or willingness to purchase IKEA products.

The many people are a large segment including many different preferences. The customers are more or less price sensitive and therefore low costs are prioritised for IKEA. The many people do also have different preferences of quality and design and IKEA offers a broad range when it comes to quality, even if the most high-end alternative is not included in the range. IKEA offers a range from the cheapest possible to a more

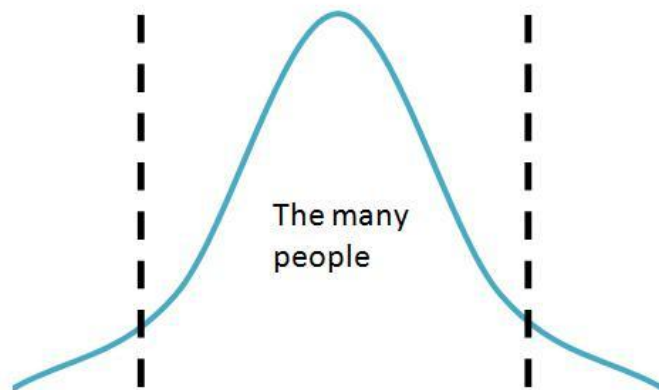


Figure 19. IKEA target customers are the many people (IKEA, 2011)

expensive, quality product. This strategy covers all categories within IKEA's range, including textiles. When it comes to textiles the raw material used is one important factor that affects the price and quality of the product. For cotton textiles the quality of the cotton is an important factor. IKEA uses cotton yarn from very coarse yarn to fine yarn in the textile products. Depending on the usage for a product, there are different quality requirements. A curtain that will not be exposed to wear can have coarse yarn in contrast to a bed linen that is used every night. Cotton quality will be further discussed in the second part of this empirical chapter.

In comparison with an apparel retailer, IKEA works with much slower product development cycles. IKEA is not changing the range with every fashion change, as many clothing companies do. Many products are kept in the range for several years. Textile is slightly more seasonal than for example a sofa frame or a bookcase, but it is mostly the colours or print that change, not the material or construction of the fabric. This gives the effect that further back in the textile value chain there is an even lower demand on delivery time and flexibility than in the final processes, because of the homogenous products. Yarn and grey cloth can be produced in huge volumes and be stored for long times. Long lead times are therefore not an important competitive factor for these products.

¹ The wood based furniture that is packed in flat packs are called flatline

5.1.4. Sourcing Characteristics

IKEA works with very large volumes and want a similar range of products in all their stores around the world. The company works with many suppliers spread around the world to not be dependent on one country or one specific supplier. At the same time they are working with close relationships with their suppliers and have a large impact on the manufacturing and delivery of the products. Product development is accomplished in close collaboration with suppliers and IKEA demands detailed insight in the suppliers' operational costs. An IKEA employee explains that being an IKEA supplier is to get married to the firm. Even if IKEA wants to buy large volumes from a producer it happens that the producer refuses because of the high demands the company has. On the other hand, IKEA puts a lot of effort in developing the suppliers with a long-term perspective.

IKEA has two common strategic tools they use in their work with finding and developing suppliers; the Purchasing Development Process (PDP) and the Supplier Development Process (SDP) (Li, 2011). The SDP and PDP processes are demonstrating how IKEA works with suppliers in order to constantly develop and improve the sourcing function. To use common processes ensures an effective way to work throughout the categories. It makes it easier to plan, execute and follow up projects conducted in different categories and countries and IKEA can easier transfer competence from one category to another.

The PDP is used to find new suppliers and to evaluate the sourcing of certain products or materials both globally and locally. It is used to understand more of the value chain, the cost breakdown of products and where IKEA is positioned. Within the textile category IKEA recently used the PDP for comparing different sourcing alternatives for yarn and they are working with a similar process for woven fabric. In these projects the competitiveness of different yarn and fabric supplying countries are compared and the results are discussed with the current textile suppliers. (Li, 2011)

The SDP is applied on current suppliers in order to develop their capabilities. In this process some main capabilities of the suppliers are evaluated. One of these investigated capabilities involves the suppliers purchasing performance and control of earlier parts of the value chain, including raw materials. For the textile category this includes information about their partners, if they buy on spot price and if they use sustainable cotton. For textiles, a few of IKEAs suppliers are fully vertically integrated which means that they have everything from yarn spinning to finished textile products, while other suppliers only have the final stitching part of the value chain. Furthermore, IKEA investigates the performance of the manufacturing, including cost breakdowns and logistics. The cost breakdowns can be compared with other suppliers in order to investigate differences. IKEA also cooperates with the suppliers in product quality and improvement. (Li, 2011) IKEA also evaluates how the suppliers work with social responsibilities and sustainability. IKEA has a social responsibility tool called IWAY and the suppliers must adopt IWAY to be an IKEA supplier. Furthermore, in the textile category, IKEA is working with a sustainability project called Better cotton, which will follow the description of IWAY.

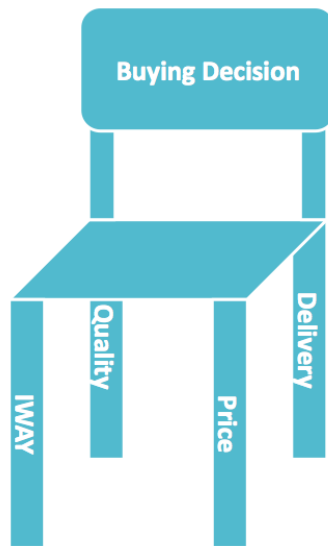


Figure 20. IWAY is one of the four anchors of a buying decision at IKEA (Li, 2011)

IWAY means the *IKEA way of purchasing home furnishing products*. It is a code of conduct that every supplier must follow in order to be an IKEA supplier and it includes minimum requirements regarding the environment, social and working conditions. It includes public laws and regulations together with IKEA specific standards and ways of purchasing. IWAY is in line with IKEAs vision of *‘Creating a better everyday life for the many people’*. When IKEA evaluates new suppliers in the PDP they look for suppliers that have an open mind set towards IWAY. They claim *‘No IWAY, No business’* and IWAY is seen as one of the four anchors of a buying decision, together with price, quality and delivery (see Figure 20). They aim for a long-term relationship with the supplier where IKEA supports the supplier to grow and develop a way of working that is completely aligned with IWAY. One consequence of this is that the suppliers need to be transparent to IKEA and let them take part of a lot

of information. IWAY includes for example prevention of child labour and severe environmental pollution, as well as regulations regarding benefits, overtime and minimum wages. (Li, 2011) In China, IKEA had some problems with the fulfilment of IWAY. One common problem in

China that many Western companies are facing is that in China migrant workers from the countryside come to work in the factories in more industrialized cities. These workers want to earn as much money as possible to send back to their families and are therefore against regulations in working overtime.

From a global perspective IKEA utilises a substantial part of the world’s total cotton output in the different IKEA products (Woolley, 2012). Hence, it is important for IKEA to work with reducing the environmental footprint from the cotton used in their products. Because of this, IKEA became one of the founders of the Better cotton Initiative (BCI) together with textile retailers and other organisations such as Adidas, H&M, GAP and WWF. BCI was started in 2005 and aims to promote measurable improvements in the key environmental and social impacts of cotton cultivation worldwide to make it more economically, environmentally and socially sustainable. BCI exists to make global cotton production better for the people who produce it, better for the environment it grows in and better for the sector’s future. This involves enabling farmers to grow and sell Better cotton by minimizing the harmful impact of pesticides and fertilizers, using water efficiently, caring for the health of the soil, conserving natural habitats, promoting decent working conditions for the farmers and participating more effectively in the supply chain to meet growing demand for Better cotton (Better Cotton Initiative, 2011). In 2011 BCI was started in China, in the Xinjiang region, and IKEA is working with the establishment and development of farms in Xinjiang (Fu, 2011). This is one of the main reasons to why Xinjiang is an interesting region for IKEAs future textile sourcing, and the region will be discussed further in the following section about the textile industry in China.

Today, IKEA is facing two difficulties in the textile category. Internally, the Trading office in Shanghai is facing some difficulties in staying price competitive for certain cotton textile products compared to other countries such as India, Bangladesh and Turkey. Another issue is that it is challenging to trace what specific cotton that has been used through the supply chain, which is becoming increasingly important with the initiation of the Better cotton initiative in China. The cotton bales are often mixed already in the spinning factory, because the spinner is producing to more customers than IKEA, and they may not have the same requirements. The traceability needs to be assured in order for IKEA to reach the goal of having 100% Better

cotton in their products and obtain the goal of securing sustainability from the initial stage of planting cotton to the final product reaches the customer.

The readers should in this stage have a better understanding of the sourcing function at IKEA and what the strategic priorities are. The reader should also have gained specific knowledge about the textile category and IKEAs sourcing in China. This information together with the upcoming section about the textile industry in an increasingly expensive China will form the basis for the analysis, where possible sourcing options for textiles in China will be analysed and evaluated.

5.2. Textile Industry in Increasingly Expensive China

This section reviews the development trends of the business environment in China with a focus on traditional or low-tech industries. Having explained this background the implications for the textile industry will be described. The future for the textile industry in China is uncertain and there will be a shift where the textile producers move from the East coast to other inland regions. One of the most competitive regions will be outlined in this section in comparison with what the East coast has to offer. Furthermore, the authors will enlighten the readers of how important the cotton is for the textile industry and how difficult it is to predict the cotton price movements on the market. Therefore, strong competence in cotton sourcing is a competitive advantage for a retailer. As stated in the beginning of the chapter, if no other source is mentioned, the section is based on information from the case study the authors conducted during six months at IKEA Trading office in Shanghai. The information is confirmed by Joakim Hammar, Deputy Trading Area Manager China.

By outlining this external perspective regarding the development trends in China, the competitive textile regions and the raw material importance, we can identify a few different sourcing options for IKEA to consider. These sourcing options will be further analysed in Chapter 6.

5.2.1. Development Trends of the Business Environment in China

In 2005, McKinsey Quarterly wrote an article called *Beyond cheap labor: Lessons for developing countries*, that discusses how middle-income countries like Mexico should compete against China's economic surge. Between 2000 and 2005 more than 270'000 Mexicans lost their jobs to China. The following quote is taken from the article:

"Rather than fixating on jobs lost to China, these countries (Mexico) should remember a fact of economic life: no place can remain the world's low-cost producer forever—even China will lose that title one day."

(Farrell et. al, 2005)

When the author wrote this article he might not have expected that this day when China lost its title as the world's low-cost producer, would in one way, arrive sooner than many expected. The growing economy has led to an increasingly expensive China with wage increases of over 16% per year. (Sirkin et. al, 2011) The emergence of a large middle class, from 4% of the population in 2005 to 56% in 2030, is the main driver of the growing demand and increasing prices, especially for utilities such as water and electricity. (Water Resources Group, 2009) Simultaneously, the increasing industrial production has made the demand for those utilities increase and the combination of an increasing middle-class and growing production has made the prices rocket. These soaring prices in commodities and labour in combination with the continuous appreciation of the Chinese currency has shrunk the already razor-thin margins for the manufacturers. Thousands of these low-cost producers are now pushed to the edge of bankruptcy. (Dexter, 2008)

A report by the American Chamber of Commerce in Shanghai found that more than half of the foreign companies established in China believe that the country is losing its competitive advantage over e.g. Vietnam and India. Almost a fifth of the companies surveyed are considering relocating out of China. (Dexter, 2008) However, even if countries like Indonesia, Vietnam, Cambodia or India may have lower labour costs, their abilities to absorb higher-end manufacturing from China are limited. According to a BCG report called *'Made in America, Again'* (2011) those countries often have inadequate infrastructure, a lack of skilled labour and a weak supply network. Additionally, there are political and intellectual property risks (Sirkin et. al, 2011). None of the countries have been able to improve transportation links as quickly as China and lengthy traffic jams slow down shipments and drive up costs. Above all, it will be difficult for the world to find the multiple millions of factory workers that China provides today. South East Asia and India together has about 42% of China's industrial labour force. (Bradsher, 2008) This means that even if India and South East Asia got rid of all their current problems, the factory worker population needs to increase in order to supply the demand of the multinational companies chasing the cheapest labour. The textile industry alone in China constitutes of about 80 million direct and indirect workers. (Mahalingam, 2012) Where are companies supposed to find this source of labour if they all move away from China? What will happen with the salary levels in South East Asia if all companies rapidly shift their sourcing to these countries? It is highly unlikely that it will be possible to continue the chase of the cheapest labour. Instead multinationals need to start looking for other solutions.

Companies in China need to raise their efficiency. From traditionally, Chinese manufacturers always have a large amount of employees in the production and if a machine brakes, more labour is hired to the other machines to raise the output. This worked before because of the low-cost labour, but not today, with a wage increase of 15-20% per year. (Woolley, 2012) The productivity in China has increased with about 10% per year which means that these gains are lagging behind wage increases. In 2010 China's productivity was about 29% of the productivity in the US. Even if China would continue with a similar productivity increase each year it would only be about 40% of US productivity in 2015. (Sirkin et. al, 2011) Thus, companies in China need to increase their investments in new equipment to increase the automation and move away from the traditional perspective that any problems can be solved with more labour. Some manufacturers will try to avoid the increases in labour and utility costs by finding cheaper places deep inside China. *"The answer to high prices in China is more China"* says William Fung, the managing director of the world's largest consumer goods sourcing company, Li & Fung. He says that other inland regions towards the West are cheaper and have a lower development pace. A shift towards the inland regions is highly supported by the Chinese government. (Dexter, 2008)

Every fifth year the central government makes a five-year plan of how they want the country to develop. Thereafter, each local government draws up a similar five-year plan for its region based on what the central government is focusing on. 2011 the 12th five-year plan was released, with a strong focus on a "harmonic development". Previously, the focus for China's economic development has been to grow as fast as possible. China's leaders are now instead prioritising strategies and measures to ensure long-term growth. (KPMG Advisory China, 2011)

The important goals in the 12th five-year plan

- Reducing disparities in wealth: Develop China's Western regions
- Sustainable growth: Protect the environment and improve energy efficiency
- Domestic consumption: Transitioning to an economy driven by domestic consumption instead of exports

- Moving up the value-chain: focus on industries such as biotechnology, new materials, new IT, high-end manufacturing. (KPMG Advisory China, 2011)

The government is focusing on developing the regions that did not yet have the huge economic surge as on the East coast. Hence, the focus is on moving many of the low-cost and traditional industries inland and making room for the high-tech industries along the developed coast. For all type of industries the emphasis is on "higher quality growth" since China is facing tough challenges in terms of pollution, resource depletion and intensive energy use. (KPMG Advisory China, 2011)

The government in China is very powerful for all types of businesses. Every industry and larger company, whether national or international, listens to the guidelines of the five-year plan. They analyse how this five-year plan can benefit or threaten their business. The government is giving strong incentives for the companies to move towards the West. For example the government builds certain industrial zones where the companies get tax refunds or are provided with cheap utility costs. Furthermore, subsidies for buying land or transporting goods to the East coast can be provided. (He, 2011) Another advantage with the Western inland regions is that companies can find cheaper labour there and other natural resources. For example some regions have natural gas and coal, which gives the region an abundance of electricity supply. (Xu, 2011) At the same time the East coast is suffering from weekly electricity shortages, since the government is trying to decrease the energy demand there. Moving electricity intensive productions to inland regions can therefore give significant cost savings. In addition to the positive incentives to move to the West, the government might force low-tech industries to move from the East coast by penalising the companies that are staying with even higher utility prices or new regulations. (Xu, 2011) On the East coast the government wants to favour the more high-tech industries mentioned in the five-year plan such as biotechnology and new IT (KPMG Advisory China, 2011).

Given the economic difficulties China's East coast is facing with increasing costs in addition to the favourable policies for moving inland, IKEA wanted to explore the benefits they could gain in their textile business by moving towards the West. Hence, this study was initiated with a focus on one of the most important textile regions, Xinjiang, in West China. This is one of the regions the government has focused on in their 'Go West' programme for the textile industry. In the following section the competitive advantage of Xinjiang will be outlined and the region will be compared with other competitive textile locations in China.

5.2.2. Description of Textile Locations in China

This section will outline the main characteristics of the regions that are of interest for the textile industry. The authors will explain why the three different regions that will be in focus are interesting for this study. The current utility costs, salary levels and transportation issues of these regions will be compared. A forecast of the development trends for the different regions is done from 2012 to 2016. The strengths and weaknesses of the different regions from an IKEA perspective will be further outlined in the analysis, Chapter 6.

When this study was initiated the Xinjiang region was the main focus, a region in West China bordering to Mongolia, Russia, Kazakhstan, Kirgizstan, Afghanistan, Pakistan and Tibet as the map illustrates (Figure 21). For this study Xinjiang region is compared with what IKEA has in China today. Currently, IKEA is predominantly present on the East coast. However, it is important to compare not only with IKEAs situation today, but also with other future strategic sourcing options for IKEA. A future sourcing alternative, apart from Xinjiang, is to move to an inland region called Hubei. Hence, this study will compare Xinjiang with both East coast and Hubei.

Traditionally, the textile industry has been present on the East coast of China. The most important textile regions are Shandong, Jiangsu and Zhejiang. They are situated next to each other on the East coast close to

Shanghai. Since the regions are similar in both a qualitative and quantitative perspective, the authors have chosen to group the regions together and name them East coast. This is where IKEA has most of its' textile suppliers today.

The experience and know-how in textiles are strong on the East coast. However, this is an area that has been suffering from the rocketing prices and salaries mentioned above. This is why both the government and retailers are searching for opportunities to establish textile industries in other parts of the country where prices in general are lower.



Figure 21. The regions of interest for the study; Xinjiang, Hubei and East coast of China (Case study IKEA Trading, 2012)

Xinjiang has a climate that is dry and sunny, which makes it favourable for cotton farming. The region produces 16% of the global cotton output, which makes it an extremely important cotton region for the world. (Solidaridad, 2010) In Xinjiang there are predominantly processes of the value chain that need to be close to the cotton farming, such as ginning (cleaning the cotton) and spinning (transforming cotton to yarn). The region has few textile producers in the later parts of the value chain where IKEA normally seeks suppliers. Thus, it is difficult for IKEA to find potential suppliers there today.

Xinjiang is famous for its high quality cotton. This means that the yarn with high yarn count is the most price competitive. As mentioned earlier in the chapter, Xinjiang is the only region in China where IKEA has established relationships with Better cotton farmers. It is important for IKEA to be able to trace the cotton from the local farmers through the value chain to the end-supplier. This traceability can be complicated since the cotton, yarn, cloth and finally product, usually is refined by different producers along the value-chain. IKEA has contact with the final part of the value-chain, which is usually the stitchery, which obstruct the traceability back to the Better cotton. (Fu, 2011)

The last ten years Xinjiang has taken advantage of the government's incentives to develop the textile industry in the region. Especially the last two years with the Go West-programme the government has started, there have been several large textile investments in Xinjiang. It is mostly large Chinese producers from the East coast such as spinners that have invested in the region. There are two industrial textile zones in Xinjiang that have developed into textile clusters with strong incentives for textile producers. (Xu, 2011) The main benefits

in the textile zones are cheap utility costs, low or no land cost, subsidies for transportation, reduced tax and provided wastewater treatment.² There are also soft parameters, such as benefiting from the know-how that is created in a cluster and getting protection from the management of the industrial zone. The management is usually the local government and their support is well needed when doing business in China. (Kong, 2011)

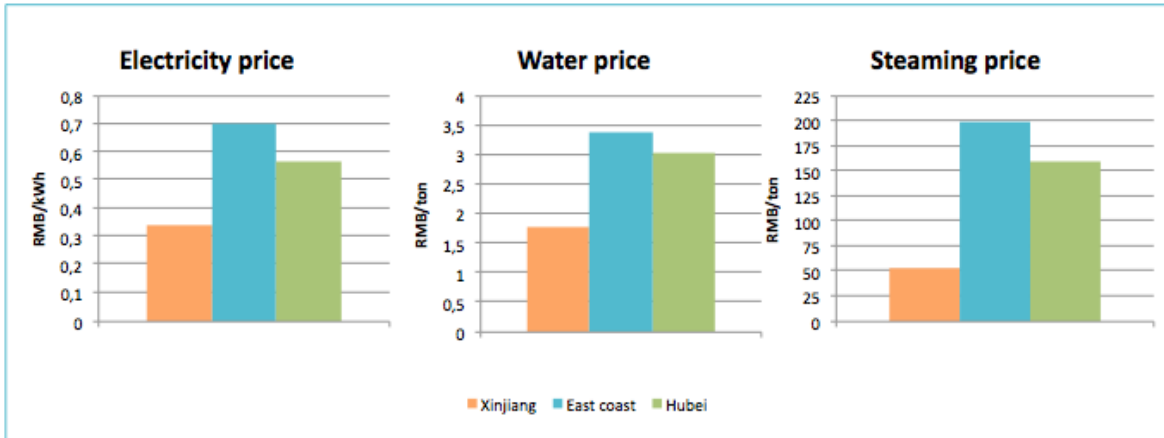
IKEA initiated an ‘inland project’ where consultants investigated which inland regions that are of interest for the future textile business. The main conclusions from the consultants were that three regions called Henan, Hubei and Hunan are the most interesting textile regions where IKEA can develop suppliers today. Xinjiang is a less developed region that is more suitable for upstream activities in the value-chain. However, it has the potential and willingness from the local government to grow and in the future there will be more processes of the later parts of the value-chain. (Excellence, 2011) Out of the three regions the consultant recommended we chose to focus on Hubei in the study. This is the most developed textile region of the three and the local government provided sufficient data that could be analysed. The following section will outline the differences in labour and utility costs for the three regions, Xinjiang, East coast and Hubei.

5.2.3. Factor Conditions – Utility, Labour and Transport

This section will outline the prices for the most important utilities in textile production, water, steaming and electricity. Thereafter, the authors will describe the labour situation and the wage levels in the regions of interest. Furthermore, the transportation issues will be outlined. Since the study has a five-year perspective, the development trends for each commodity in the different regions will be discussed.

One of the largest advantages with producing textile in Xinjiang is the extremely favourable utility costs as can be seen in Graph 1. Xinjiang has an abundance of natural resources such as coal and gas, which is why the industrial zones can offer such a low electricity price. The electricity price is more than 50% cheaper than the East coast. Regarding water, the price difference is similar to electricity. For steaming, that is heavily utilised in the bleaching, dyeing and printing process, the price in Xinjiang is one fourth of the East coast price. Even if Xinjiang is compared with Hubei, that is supposed to be a price competitive inland region, Xinjiang offers significantly cheaper utility prices. These extremely low utility costs will give large savings in running costs in the production as will be seen in the analysis, Chapter 6. This is one of the main reasons to why there have been so many textile producers investing in high capacity, modern factories in the region the past ten years. Xinjiang was also compared to all other regions in China, including regions that are less developed and poor. It became clear that Xinjiang offers the lowest utility prices among all regions in China. (Water Resources Group, 2009)

² Water treatment plants are necessary for the wet process of textile, in order to clean the water from chemicals after the processing. Some regions in China do no longer admit companies to invest in wet processing because they do not have available capacity of water treatment and do not allow the companies to build their own water treatment. (Tianshen, 2011)



Graph 1. Comparison of utility costs in industrial zones in the three regions of interest (Case study IKEA Trading, 2012)

The electricity demand grows rapidly with 13% per year. However, the Chinese government has a rigid price control and has kept a constant growth of 8% per year. (Leung, 2011) It is assumed that it will be difficult for the government to keep this low price development on the East coast, which is why it is set to increase with 10% per year the upcoming five years. Xinjiang has a large supply of electricity compared to rest of China, which is why it is assumed that Xinjiang will have a slower growth than East coast. (Leung, 2011) Hubei is assumed to have a similar development of electricity, water and steaming costs as the East coast, while labour costs are assumed to increase slower with reason of the large labour supply in this region. The steaming development is assumed to follow the electricity development.

Since Xinjiang is a region with extensive areas of desert it is surprising that they can have the lowest water prices in the country. The textile industry consumes large amount of water. The textile production accounts for 8,5% of the total amount of water used by industry in China. Hence, it is important to have an extensive

Gap between existing supply and projected¹ demand in 2030
Percent of 2030 demand

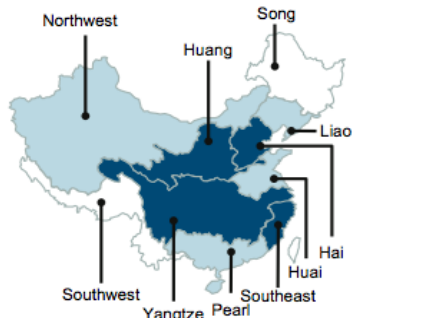
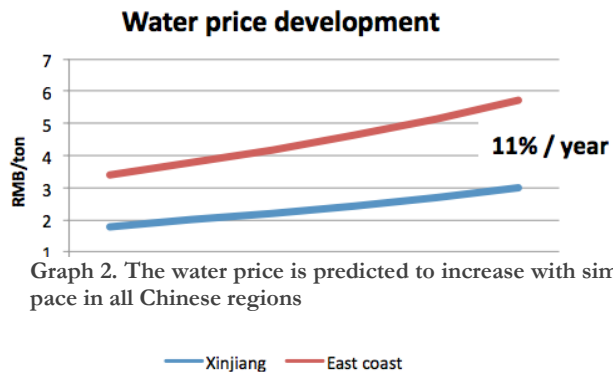


Figure 22. Differences in water resources in China (Water Resources Group, 2009)



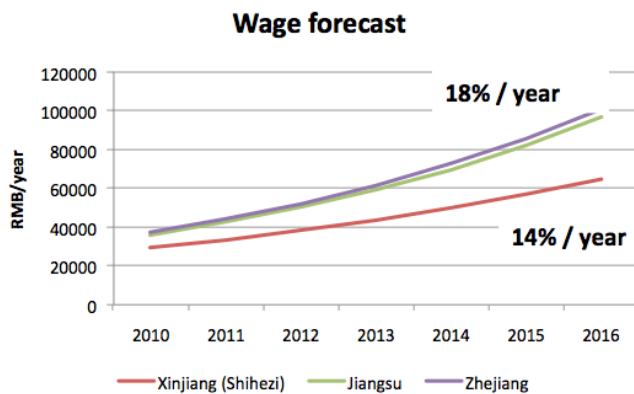
Graph 2. The water price is predicted to increase with similar pace in all Chinese regions

supply of water. The water demand is increasing fast in China and is driven by the industrial growth and the urbanisation. A report made from the Water Resources Group (2009) shows the map with the gap between water supply and projected demand for each

region in 2030. The inland regions, including Hubei, will have the most severe demand-supply gap of water. Heavy water-using industries will face increasing water scarcity and urbanisation is increasing. Xinjiang in Northwest of China has a moderate demand-supply gap.

Water prices in China are under-priced compared to other countries and some regions should expect a sharp increase. Government aims to increase water price of about 11% per year in 2010 – 2013. (Responsible Research, 2010) We assume that the industrial water price will continue to increase with 11% per year on East coast and in Xinjiang, 2011-2016. We set the same high water increase for Xinjiang due to the fact that the region has scarce water resources because of its climate.

A disadvantage in Xinjiang is the lack of labour. Xinjiang is China’s largest region with a geographical area the size of Western Europe. Simultaneously, there are only 19 million inhabitants, which makes the region quite empty. Thus, it is difficult to find labour, especially if there are special skills required, which is usually the case in the textile industry. Additionally, about 50% of the population is Uyghur, which is a Muslim ethnic minority. The rest of the population is Han Chinese, which is the most common in China and they speak Mandarin. The Uyghur have their own language and do usually not speak Mandarin. This can lead to communication difficulties and the different religions have historically led to complicated political situations (Kong, 2011). Textile producers that were interviewed either had a mix of nationalities or hired solely either Han Chinese or Uyghur in the production.



Graph 3. Forecast of the development of wages (Sirkin et. al, 2011 and Xinjiang Statistical Yearbook, 2010)

The difficulty to find skilled labour in addition to the minority conflicts makes the labour shortage in Xinjiang severe. Hence, the wage levels are high to attract immigrant workers from other regions in China. In fact, the wage levels are almost similar to the salaries on East coast and in Hubei. However, the regions on the East coast, such as Jiangsu and Zhejiang in Graph 3, have a higher wage increase than what is the case in Xinjiang. Hence, this gives an increasing advantage for Xinjiang over time. (Sirkin et. al, 2011 and Xinjiang Statistical Yearbook, 2010)

As can be seen in Figure 23, Xinjiang’s location is inconvenient, more than 4000 km from China’s coast where goods are exported to the rest of the world. The Chinese government is making large investments to improve the infrastructure to the West. (KPMG Advisory China, 2011) Xinjiang is predominantly purchasing manufactured products with high value and low volume. At the same time, the region produces different raw materials, fruits and cotton that have low value and high volume. This situation makes it difficult to find capacity on the trains that are going East. (Xu, 2011) The waiting times are long and many companies choose to freight the goods by truck instead. This is a fast but expensive alternative. The optimal alternative for IKEA would be to ship the goods with truck halfway and thereafter change to train the rest of the way. (Lv, 2012)

The Chinese government gives strong subsidies for the transportation of certain products from Xinjiang. This is a way to enhance the value-adding processes in Xinjiang instead of only producing the raw material there. (Xin, 2011) The subsidies for e.g. fabric makes the transportation cost from Xinjiang to Shanghai similar to the transportation cost from Hubei to Shanghai. Hence, the transportation costs are actually not a

disadvantage for Xinjiang, instead it is the lead time and the reliability of receiving the goods on time that is the weak factor. The lead time from Xinjiang is almost a month, while Hubei or East coast goods are transported to the ports in only a couple of days. (Lv, 2012) This is something that must be taken into consideration in the evaluation in Chapter 6.

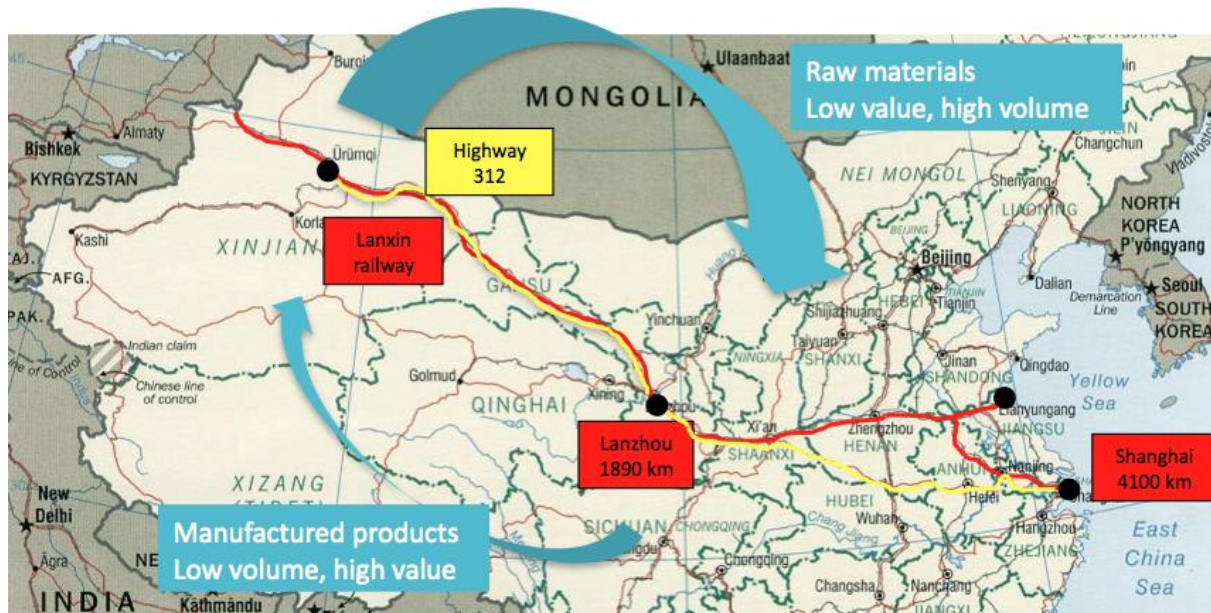


Figure 23. Transportation routes from Xinjiang to the East coast (Case study IKEA Trading, 2012)

Historically, the transportation price has followed the oil price development closely. The more automated the ports and logistics centres become, the more the transportation depends on fuel price. Evidently, the oil price is always fluctuating. In general the oil price has been increasing with 8% per year the last 20 years. (Rubin, 2008)

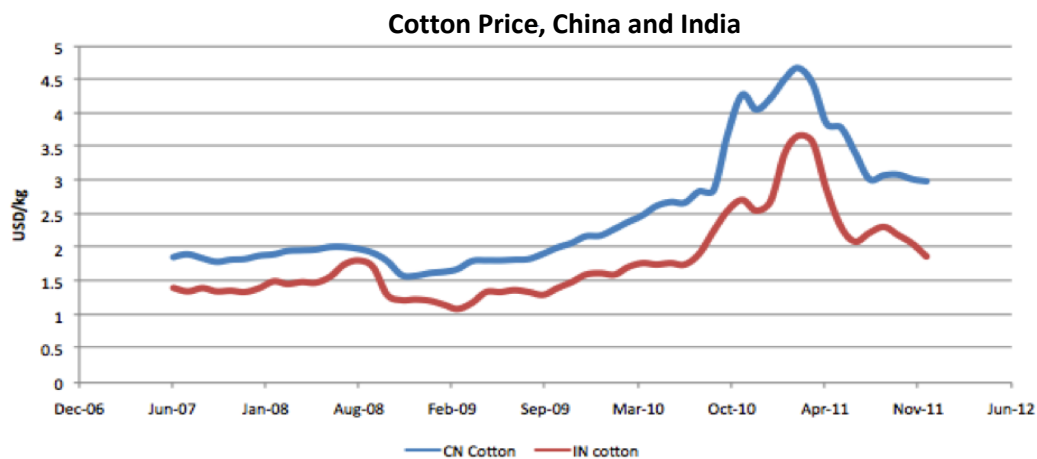
When examining a China map, Xinjiang looks indeed like an inconvenient location. However, if we instead would look at a world map to get a global perspective, Xinjiang is a more central point. As mentioned before, the distance from Xinjiang to Shanghai is over 4000 km. However, the distance from Xinjiang to Hamburg through the Euro-Asia highway³ is only about 6000 km. 95% of the goods produced in Xinjiang destined for Europe is still going the sea route through China's ports. However, the lead times could potentially be reduced with over 20 days if the cargo was transported via the Euro-Asia highway. There are still difficulties with the Euro-Asia highway such as delays by the borders because of inefficient administration, infrastructure and schedules. However, the United Nations together with 18 involved countries have invested more than 42 billion USD the last years with the objective to improve the mentioned issues. (Economic Commission of Europe / Asia, 2008) Even if the Euro-Asia highway is not a reasonable alternative today, this is food for thought for the future.

³ New Eur-Asia route: China – Kazakhstan – Russia – Poland – Germany (Economic Commission of Europe / Asia, 2008)

5.2.4. Raw Material Sourcing

Before going into the analysis in Chapter 6 it is important to explain the raw material importance in the textile industry in order to understand the future sourcing options IKEA should consider.

China is the world's top producer of cotton, but a strong local textile industry also makes the country the largest cotton consumer and importer. (Hook & Meyer, 2011) Cotton is a commodity similar to oil in the sense that investors make speculations, which makes the cotton price volatile. Graph 4 illustrates the cotton price from 2007 – 2011 for India and China. As the graph shows, the cotton price in China is in general higher than in India. It is also clear that there was a peak in the cotton price during 2010-2011. (EmergingTextiles, 2012) This peak is seen in the total value chain. For example, when the prices increase the spinners stock the cotton and wait for the prices to increase further. This leads to a lack of supply that makes the prices increase even more and so on. Without any insight in the beginning of the value-chain it is difficult for a retailer by the end of the value-chain to withstand those price fluctuations. (Yin, 2011)

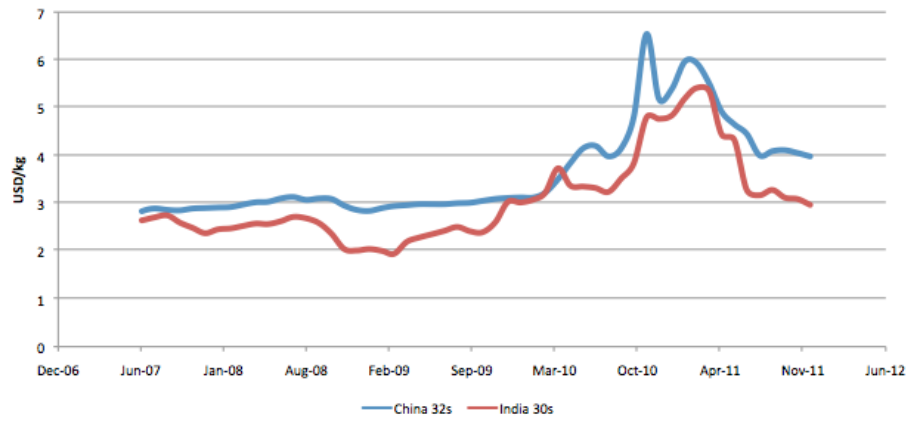


Graph 4. Cotton price development in China and India (EmergingTextiles, 2012)

The past five years the cotton price in China has been in average 30% more expensive than the Indian cotton. One of the reasons for the large difference is the fact that Chinese government is building a cotton reserve by buying cotton from domestic farmers for a higher price than the world market price. This is a way to encourage the cotton production in China. The cotton farmers are deciding whether they should continue to plant cotton or change to another crop. When Chinese government announce that they will build a reserve, they send a very positive signal about future cotton prices to the farmers and encourage them to continue to plant cotton. (Pan et. al, 2011)

As mentioned earlier in this study, the cotton is an important part of the total cost breakdown of a product. Therefore, a cotton price difference of this size makes the end product in India cheaper than in China. IKEA Trading in China started a project to investigate if it was beneficial to source the cheaper raw material from India and produce the product in China. Since there are quotas when importing cotton to China, the focus was to analyse the import of yarn instead where there is no quota. The graph below depicts the differences in yarn price between China and India over a period of five years. It illustrates that Indian yarn is in average 15% cheaper than Chinese yarn. The reason to why the difference is smaller than on the cotton level is because Indian spinners are more expensive than Chinese. (EmergingTextiles, 2012)

Yarn Price, China and India



Graph 5. Yarn price development in China and India (EmergingTextiles, 2012)

When the Indian yarn is imported to China there will be additional costs, such as sea transport, import duty and Chinese VAT. Hence, the landed Indian yarn price in China is higher than the yarn price in India. In the following section the authors will analyse the difference in landed Indian yarn price compared to the Chinese yarn.

IKEA could convince Chinese suppliers to source yarn from India in order to get a lower raw material cost and thereby a lower final product price. If the yarn price in India at some point is not competitive, the supplier can have a flexible yarn sourcing and source from the local market instead. However, if IKEA choose to invest in Xinjiang, the inconvenient location makes it expensive to source and transport yarn from other countries. Besides, if IKEA is present in Xinjiang, the closeness to the cotton might make it possible to source raw material for a more competitive price than the Chinese market price. The different advantages of being close to the raw material will be further outlined in the following section.

The reader should in this stage be aware of the challenges businesses in China are facing. The section has outlined the most important textile regions in China and their future development. Finally, the authors describe the possibility to source yarn from India in order to get a lower raw material cost. This section is thus a solid basis for which future sourcing options IKEA should consider. The sourcing options will be evaluated in Chapter 6.

These are the sourcing options for IKEA to consider

- Maintain current suppliers on East coast and influence them to have a flexible yarn sourcing from different countries
- Move suppliers or change to new suppliers in an inland region such as Hubei and influence them to have a flexible yarn sourcing from different countries
- Establish a supplier, partnership or in-house production in Xinjiang with closeness to the local cotton

SUMMARY – EMPIRICAL RESULTS

- The IKEA concept is to provide a wide range of functional, well-designed furniture at prices so low that as many people as possible will be able to afford them
- IKEA is vertically integrated for some categories, but work with suppliers for textiles. IKEA works with close long-term relationships with their suppliers and requires close insight in the suppliers operations and is constantly working on reducing costs
- IWAY exists to assure social, environmental and working conditions in the supply chain. IKEA are working with the Better cotton Initiative, 2011 the project started in Xinjiang
- China is becoming increasingly expensive with a growing middle class. The East coast of China is more developed than the inland and is facing high salary increases, high pollution levels and electricity shortages. In the new five-year plan the Chinese government is focusing on developing inland regions by moving many low-cost and traditional industries to the West
- In this study three regions are identified for IKEAs future textile sourcing in China; the East coast, Xinjiang and Hubei
- Xinjiang is one of the regions with textile focus from the government. It is the largest cotton growing region in China and companies investing there can benefit from low prices on electricity and steaming, transportation subsidies, low land costs, tax reductions etc.
- Raw material has an important role in the product cost breakdown and IKEA has been investigating cotton and yarn prices in India and China

6. Analysis of the Strategic Sourcing Options for IKEA

The bulk of the present chapter will give the answer to what strategic alternative IKEA should, arguably, further consider in order to lower costs and concurrently maintain or improve sustainability and quality in the textile sourcing.

This chapter will analyse the main strengths and weaknesses of possible sourcing options available for IKEA and conclude which sourcing option that is optimal. This will be done following the theoretical framework outlined in Chapter 4, illustrated in Figure 24. First, the internal factors are outlined, including an analysis of IKEAs sourcing strategy, and a description of what products and processes that are of interest in the present study. Second, the external location analysis is conducted, which will analyse the sourcing options from a multi-level, multi-criteria and multi-periodic perspective. The external analysis will include two parts. First a quantitative cost comparison of the sourcing options will be presented, and thereafter a qualitative comparison will be made of the two most interesting sourcing options.

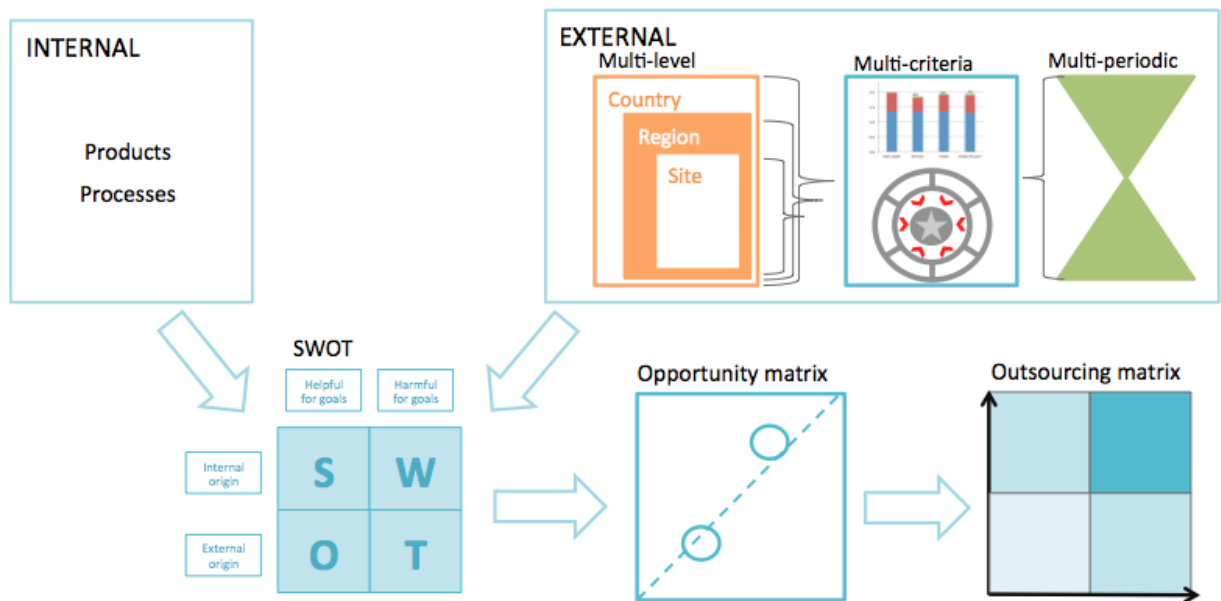


Figure 24. Theoretical framework applied for the analysis. (Case study IKEA Trading, 2012)

The internal and external analysis will thereafter boil down to a SWOT analysis of the two most promising sourcing options and they will also be evaluated according to the opportunity matrix. At last, the most optimal sourcing option will be further evaluated in the outsourcing matrix in order to decide a suitable integration level for the recommended alternative. By the end of the chapter the most beneficial strategic sourcing alternative for textiles in China will be presented in the final recommendations to IKEA. This section will also evaluate if this sourcing option fits with the IKEA vision.

As was explained in the previous chapter the Xinjiang region was the main focus for the study when it was initiated. The study seeks to compare the Xinjiang region to (i) what IKEA has in China today and (ii) to other alternatives that are optimal for the future. The internal analysis will focus on what set-up, products and processes that are suitable for IKEA to source from the Xinjiang region. Thereafter the external analysis will focus on if there is any other sourcing option that is more optimal for this type of set-up.

6.1. Internal – the Firm

This section will include the internal analysis for the study. First, the IKEA sourcing strategy will be analyzed, by comparing the strategy with the other companies outlined in the literature, Carrefour Group, Li & Fung and Esquel. Thereafter the most suitable products and processes for the present study will be analyzed. After having concluded which set up that is optimal to focus on in Xinjiang, a location analysis is conducted to evaluate whether it is better or cheaper to source these products in another region. Hence, the Xinjiang region is compared with the other regions, East coast and Hubei, in the external part, Section 6.2.

6.1.1. Analysis of IKEA Sourcing Strategy

IKEA's key performance objective is cost. IKEA aims to have as low prices possible so that as many people as possible can afford them. Another important performance objective is flexibility (mix) since IKEA wants to provide the customers a wide range that fits for the many people, meaning a range including different preferences of price, quality and design of the products. Textile might not be the most important category for IKEA, but is still important to complete the range, since textiles are included in most parts of a home. The French retailer Carrefour Group that was mentioned earlier is also focusing strongly on cost and flexibility (mix) in their sourcing, but applies a very different sourcing strategy compared to IKEA. IKEA is working with a relatively low number of suppliers and close relationships and invests in developing their suppliers and wants a close insight in the manufacturing. Carrefour Group is instead working with a much larger supplier base and each purchase is a new negotiation occasion. Carrefour Group is also adopting the sourcing to each local region, while IKEA are working with a more centralized, global sourcing strategy. IKEA's global strategy is suitable for its type of products, with low requirements on lead times and where costs can be reduced by producing large volumes in the country with the lowest production costs. Carrefour Group is instead producing food products, which requires short lead times and a range that is applied to the local taste.

Li & Fung is working with closer relationships with their suppliers than Carrefour Group and they always occupy more than half of the supplier's capacity in order to be an important customer for the supplier. This strategy is similar to IKEA's sourcing strategy, since both companies purchase large volumes from their suppliers and assure a high influence on the supplier. IKEA can, by creating dependence from suppliers, implement IWAY and obtain close insight in the supplier's production cost. What is especially interesting with Li & Fung's strategy is that they also purchase raw material in large volumes and distribute to their suppliers, in order to lower raw material costs. Raw material has a high impact on the price of textiles and if IKEA could improve their control and lower the raw material cost on their products this could lower the price on the final textile products substantially. IKEA's textile products require more than enough cotton to make it possible for the company to source cotton in large volumes with competitive prices.

The other textile company mentioned in the comparison of sourcing strategies is Esquel. They are an interesting case for the present study since they have a vertically integrated supply chain and are present in Xinjiang. If IKEA would invest in Xinjiang they could learn from Esquel's strategy of creating a close relationship to farmers and support the cotton producers with investments. Esquel is doing this to assure the best quality cotton, grown according to the company's preferences. IKEA could do this in order to assure the Better cotton quantities, but also to lower the cost of cultivation, by investing in for example cotton-picking machines that reduces the labour costs significantly. Esquel is focusing on quality and lead times and these factors are not the most important performance objectives for IKEA. A certain level has to be reached, but thereafter these factors are not affecting the customer's buying decision in particular. Esquel's fully vertically integrated supply chain is not a necessary set-up for IKEA. However, learning from Esquel's way of including product development in every step of the value chain is an interesting strategy. Today, IKEA is striving to

have a complete insight in the suppliers' manufacturing, but it is challenging for the company to have control further up stream in the supply chain. A partly vertically integrated value chain could improve this, and could also enable product development earlier in the supply chain. IKEA has proven its strong impact and possibility to change an industry several times in the history. One example is the sustainability efforts with the IKEA catalogue that was described in the empirical chapter. An involvement in the entire textile supply chain can allow industry-changing innovations where IKEA is the main driver and uses its network of expertise to develop a unique, sustainable way of doing textiles.

6.1.2. IKEA Textile Products in China

The objective is to decide which products that would be most suitable to produce in the Xinjiang region. In the scope of the project it is defined that the focus should be on cotton textile products. The reason is that the major part of IKEAs textile products contains cotton and besides, the Xinjiang region in focus is one of the world's most important cotton regions.

As mentioned in the empirical chapter, China in general and Xinjiang in particular are competitive in the high-quality cotton segment, suitable for producing yarn with high yarn count. Hence, the textile products that are sourced from IKEA in China have in average a higher yarn count than the products sourced from e.g. Bangladesh and Pakistan. IKEA China is still sourcing coarser yarn products such as upholstery covers, towels and rugs from their Chinese suppliers. However, in these cases the raw material is often imported cotton with lower yarn count or mixed materials, such as a polyester/cotton mix.

Since one of the reasons to produce textiles in Xinjiang is to be close to the raw material, it is evident that we want to avoid importing cotton or mixing materials and instead focus on using the high-quality cotton from Xinjiang. Furthermore, it is important to source the local cotton since IKEA is establishing relations with Better cotton farms in Xinjiang that produces more sustainable cotton. Since IKEAs objective is to have 100% Better cotton in their textile products, it is crucial that IKEA can trace the raw material in the textile products back to the Better cotton farms.

The sourcing option in Xinjiang would be to have a factory 100% dedicated to IKEA products. In Section 6.5, we will discuss the ownership structure of such a factory. Since it is essential to get economies of scale in the factory, the objective is to produce large volumes of a few similar product types. It is important that the products produced in the factory have relatively standardised constructions in order to avoid machine stopping. The products that are sourced in China from Chinese suppliers today are the most interesting products since we do not want to radically change IKEAs global textile sourcing. Therefore we did not focus on products that are produced in e.g. Turkey today. It is also important that the product categories have a forecasted volume growth in China over the next few years.

To sum up, the most competitive textile products for this project have the following characteristics:

- 100% cotton products
- High yarn counts
- Large volumes sourced in China
- Standardised constructions

The IKEA textile products that match with these characteristics are the high range bed linen and the natural filled fabric. Regarding the bed linen, the range is somewhat seasonal. However, it is mostly the colors or print that change, not the material or construction of the fabric. In IKEAs range there are both bed linen with 100% cotton and bed linen with mixed materials. In this study we focus on the pure cotton bed linen. Most of

the high range bed linens are already produced in China today since the Chinese cotton is price competitive for the high quality. Regarding the filled fabric, this is the white fabric that encloses the down and feather pillows or quilts. The quality of this fabric is also high in order to avoid the feathers from sticking through the fabric and large volumes are sourced from China today.

By analysing IKEAs sourcing needs and product range and combining this with China's competitive advantage in cotton and textiles, it is concluded that the products in focus for this study is high quality bed linen and filled fabric. If we go back to Hamel and Prahalad's (1990) core products tree in the literature chapter, the products we have chosen in this study are not really core products if we analyse the tree from a global IKEA perspective. However, if we redefine the perspective to IKEA Trading in China, it is clear that textile is a very important category and the products with higher cotton quality are not sourced in larger volumes in any other country. To conclude, it can be said that even if bed linen and filled fabric is not core products for IKEA globally, they are definitely major products in IKEA China and therefore they are linked to the core competences that IKEA China and its' suppliers possess.

6.1.3. Innovative Textile Supply Chain

This section will outline the textile supply chain and production of the most suitable products concluded in the previous section. By considering the competitive advantage of Xinjiang and combining this with the strategic performance objectives of IKEA, a suggestion of a suitable textile supply chain is outlined. It is important to note that we focus solely on the Xinjiang sourcing option. Later on the sourcing option will be quantitatively compared with the sourcing options in the other regions.

As was mentioned in Section 2.2 cotton is a major part of the cost breakdown for a textile product, constituting more than a third of the bed linen cost. Further, we stated in Section 5.1 that IKEA textile suppliers often are responsible for only the end of the value chain. For example, a supplier purchases grey fabric that he will then bleach, print and stitch. Therefore, it is difficult for IKEA to have an overview of the entire value chain and control the costs and added profits of the earlier processes. Furthermore, it is complicated to trace the cotton that is used in the products. A way for the firm to get better insight and control is to integrate into the supply chain.

If Xinjiang is in focus, the most optimal processes for integration would be weaving and bleaching. The authors will now go through the reasoning behind this statement by starting upstream, with the cotton farming, and continuing down streams to the stitching. This section will contain some new information for the reader, which was gathered during the case study at IKEA Trading in Shanghai when nothing else stated.

- **Insight in cotton production.** If IKEA is present in Xinjiang, the company will have a close collaboration with the Better cotton farmers and can get a better understanding of the "real costs" of cotton and be less dependent on the fluctuating market price. IKEA can even support the local farmers with investments, such as cotton-picking machines, in order to lower the costs for the farmer. Furthermore, IKEA will collaborate with the ginner (that cleans and package the cotton) and purchase large orders of Better cotton to be able to get a competitive price.
- **Collaboration with spinner.** After IKEA purchased the cotton, they will outsource the spinning to the local spinners. There are several large, automated spinners in Xinjiang and the competition among the spinners will push down the yarn price, which make the process suitable for outsourcing. Besides, the utility costs such as electricity are low for the spinners there. A close collaboration with one or a few spinners gives a good control of the yarn price.
- **Internal weaving.** There are several reasons why IKEA needs to be involved in the weaving production. First of all, there are not many existing weavers in Xinjiang and therefore it is difficult to

find a potential supplier. Second, weaving is a large part of the cost breakdown. Since the electricity usage is high in the weaving and the electricity costs are low in Xinjiang, this will give a large cost reduction. Third, in the weaving we can get economies of scale since the product categories have similar fabric constructions. Finally, IKEA is still close to the first part of the value chain which gives insight in the raw material costs as mentioned earlier.

- **Internal bleaching.** Similar to the weaving, IKEA needs to initiate a bleaching factory since there are not many current bleachers in the region that can meet the demands of IKEA. Since both the high range bed linen and the filled fabric needs to be bleached the production can reach economies of scale by producing standardised white fabric. Additionally, the steaming price is cheap in Xinjiang and this is usually a large part of the operational costs in bleaching. (textile supplier, 2012)
- **Dyeing or printing by supplier.** It is not beneficial to have the dyeing and printing in Xinjiang. The bed linens have several different prints and colours, which makes it difficult to achieve large volumes and an efficient production. Furthermore, the patterns and colours are changed quite often which requires that the lead time from production to customer is short. With the long lead times of minimum one month that Xinjiang offers, it is not efficient to print the fabric there. The printing also requires skilled, experienced workers in order to generate the exact right colours and those workers are difficult to find in Xinjiang. The bleached white fabric should be sent to an existing IKEA supplier in China that can continue the wet processing. IKEA would still gain the traceability benefits by being a part of the value chain. They also have a good control of the price since they know the price of the bleached fabric and therefore how much the final supplier is adding.
- **Filling, stitching and packaging by supplier.** Regarding the filled fabric it is not possible to do the down and feather filling and produce quilts or pillows in Xinjiang. There is no filling material in the region and the transportation of filled products is expensive since the volume of a pillow is much larger than the fabric used for the pillow. Furthermore, it is reasonable for the end-suppliers to continue with the stitching and packaging if the fabric is already sent to the supplier for the dyeing, printing or filling. Besides, the labour costs are expensive in Xinjiang and stitching is a labour intensive process.

To conclude, the process is illustrated in Figure 25, where IKEA is involved in processes within the Xinjiang factory.

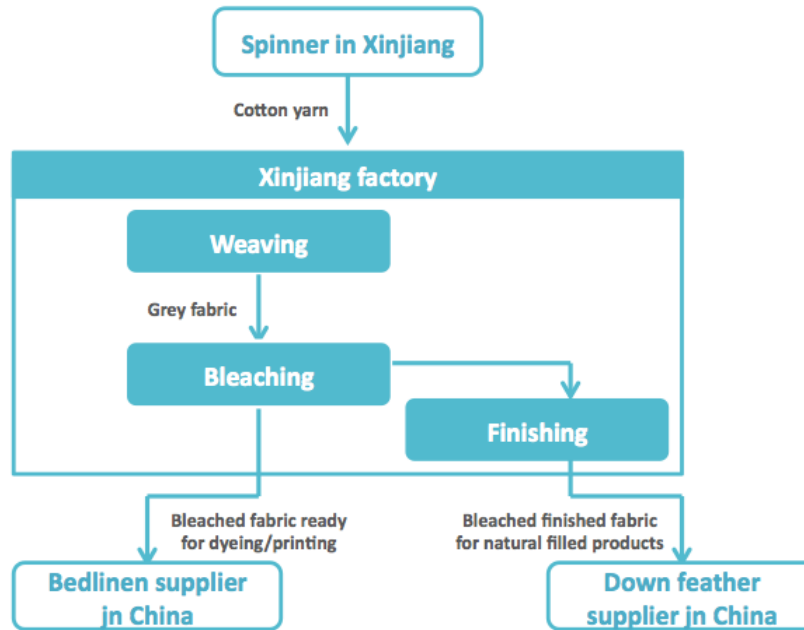


Figure 25. Process flow from spinning in Xinjiang to end-supplier elsewhere in China. (Case study IKEA Trading, 2012)

As mentioned earlier, the cost performance objective is the most important strategic priority for IKEA. The main advantage with being integrated in the supply chain in Xinjiang is that the cost of producing the core products will be lower. The insight in the cotton production, the collaboration with spinners and the cheap utility costs in the weaving and bleaching will all contribute to lower costs. Additionally, IKEA has a perfect insight in the purchasing price of the bleached fabric their current end-suppliers buy.

It is not only the cost performance that will improve by being involved in the production. There are also large opportunities to increase the social responsibility in the textile value chain. First, IKEA will be able to trace the Better cotton from the cotton farmer to the end product. Second, IKEA will be 100% compliant with IWAY, the minimum requirement relating to the environment and working conditions. Third, IKEA can work proactively with textile sustainability by having a state-of-the-art weaving and bleaching production. Especially in the bleaching process there are fundamental improvements to make. Large amounts of water are used in a conventional bleaching process, which can be reduced with an innovative production.

By having an innovative factory with the latest equipments and techniques substantial improvements can be made both regarding sustainability and efficiency. For example, new weaving machines have a higher weaving speed, require less electricity and are more automated. We will not go through the design of the innovative factory in detail. What is important to understand is that IKEA would have a different mindset than the current Chinese suppliers that often buy old machines from e.g. Turkey to avoid large investment costs (Woolley, 2012). As mentioned in the empirical chapter, the efficiency of a Chinese average textile mill is about 40% of an American production. If IKEA established a textile factory in Xinjiang, it would be state-of-the-art, automated machinery that rather has an American productivity than a Chinese. IKEA needs to collaborate with its global network of textile suppliers, experts and organisations in order to gain competence within textile production, which is not a core competence of the firm today. We will discuss this matter further in the vertical integration section where the strategic importance of these competences is outlined.

It is now decided which products (high range bed linen and filled fabric) and processes (weaving and bleaching) IKEA should focus on if establishing a factory, partnership or supplier in Xinjiang. The external location analysis will conclude if there is any other region that is more suitable for producing these products than the investigated Xinjiang region.

6.2. External – the Environment

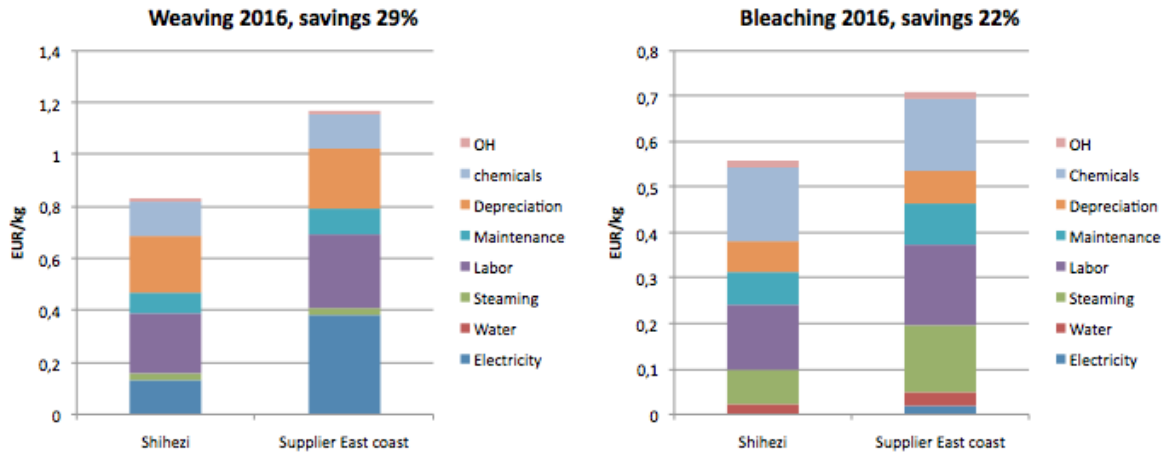
The external analysis will start with a cost comparison of the three sourcing options for IKEA to consider, that were presented in the previous chapter. Of the three alternatives, the two most price competitive alternatives will be further analysed qualitatively with a PESTLE analysis. As have been explained in Chapter 4 a location decision should be analysed from three aspects; multi-level, multi-criteria and multi-periodic. For the present study, the multi-level aspect was already set in the scope of the project since we decided that the study should compare regions within China, not compare China with other countries. The multi-criteria aspect is the backbone to the external analysis, and both quantitative and qualitative aspects are discussed throughout the section. The multi-periodic aspect will be included in both the cost comparison and the PESTLE, where the future development for the sourcing options is discussed.

6.2.1. Cost Comparison of the Sourcing Options

The empirical chapter concludes the different sourcing options for IKEA to consider:

- Establish a supplier, partnership or in-house production in Xinjiang with closeness to the local cotton
- Maintain current suppliers on East coast and influence them to have a flexible yarn sourcing from different countries
- Move suppliers or change to new suppliers in an inland region such as Hubei and influence them to have a flexible yarn sourcing from different countries

The cost comparison is a multi-region analysis where Xinjiang is compared with East coast and Hubei, analysing the quantitative multi-criteria of each region by comparing the operational costs. It is also a multi-periodic analysis since the project has a five-year perspective. Hence, the costs and fabric price in the graphs will be for 2016. The price development assumptions are outlined in the empirical chapter, Section 5.2, and differ depending on region. It is assumed that costs such as electricity and labour will increase faster on the East coast than in Xinjiang, therefore the cost savings of being in Xinjiang will increase for each year. For example, the operational cost savings for a weaving process in 2011 is 20% if Xinjiang is compared with a current East coast supplier. However, the cost saving for the same comparison in 2016 will increase to 29% according to the stated assumptions in the empirical chapter (see Graph 5).



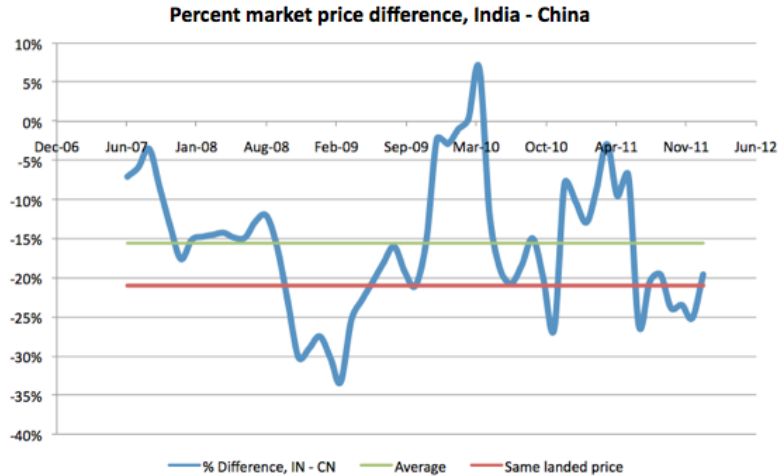
Graph 5. Operational costs for weaving and bleaching in 2016, Xinjiang (Shihezi zone⁴) compared to supplier on East coast. (Case study IKEA Trading, 2012)

Regarding the weaving process, the major driver in the cost breakdown is electricity, which results in the large cost saving of 29%. In the bleaching process the usage of electricity is low and it is instead the steaming and labour that drives the costs, which results in cost savings of 22% in 2016. The total operational cost savings for both weaving and bleaching are about 27%.

The operational cost savings are substantial and Xinjiang is a very price competitive region from this point of view. However, the comparison is done with a current supplier on the East coast as if they continue to develop as today. This comparison can be seen as unfair since IKEA probably will develop its current suppliers or sourcing strategies. Instead, Xinjiang should be compared with other future strategic sourcing options IKEA is considering in China. Hence, the authors will compare Xinjiang with the two other sourcing options previously outlined.

One option is that IKEA influences its suppliers to source yarn from other countries in order to get lower raw material cost. As mentioned in the empirical chapter India often has lower prices on yarn than China. The authors decided to analyse this further in order to understand how often it would be beneficial for Chinese suppliers to source yarn from India. The market price difference between Indian yarn and Chinese yarn the last five years is depicted in Graph 6. For example, in June 2007 the Indian yarn was 7% cheaper than Chinese yarn. As the graph illustrates, the yarn prices in the two countries are volatile. In average the Indian yarn is 16% cheaper than the Chinese yarn (green line). However, when importing Indian yarn to China, transport costs and additional duties are added which increase the price of the Indian yarn. Something that was found in the case study was that the addition of Chinese VAT to the imported Indian yarn made a large impact and diminished the advantage of the Indian yarn price. The red line in the graph indicates how much cheaper the Indian yarn needs to be in order to make it beneficial for Chinese suppliers to source from India.

⁴ Shihezi is an industrial zone in Xinjiang

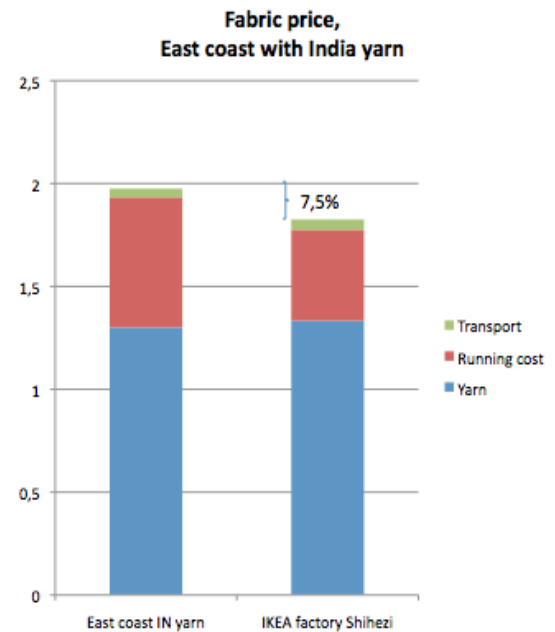


Graph 6. Deviation in yarn price between India and China (EmergingTextiles, 2012)

The market price difference is very high about 20% of the months (when the blue graph is below the red line). However, for the high yarn quality that are of interest in this study, it is beneficial to import yarn from India only in 15% of the months. Thus, in general it is not recommended to source high quality yarn from India to China. However, if there is an extreme deviation such as in February 2009, it can be very beneficial to source yarn from India. Other countries than India can also be considered for sourcing of yarn, but the yarn in e.g. Pakistan does not have the high quality that is required for the core products of interest.

The authors choose to investigate what the price difference of the fabric would be if Xinjiang is compared to a supplier on the East coast that sources Indian yarn in a period of time when it is beneficial. In the chosen case, the Indian yarn is 20% cheaper than the Chinese yarn. We calculate the fabric price by sum yarn price, the operational costs (as in Graph 5) and transportation costs⁵. As we mentioned earlier, the operational cost savings in Xinjiang are significantly cheaper than on the East coast (27%). However, the transportation costs from Xinjiang to the Chinese East coast are high.

In Graph 7, it can be seen that even if the East coast supplier uses the Indian yarn, Xinjiang with Chinese raw material is still 7,5% cheaper. This can be compared to the normal case when the East coast supplier uses Chinese yarn. In this case Xinjiang is 8,0% cheaper than East coast. Hence, it is only slightly cheaper to produce fabric on the East coast with Indian yarn than with Chinese yarn. In comparison, producing the fabric in Xinjiang is significantly cheaper. Even if IKEA can impact their suppliers on the East coast to source yarn from India in beneficial cases, it will not reach the cost



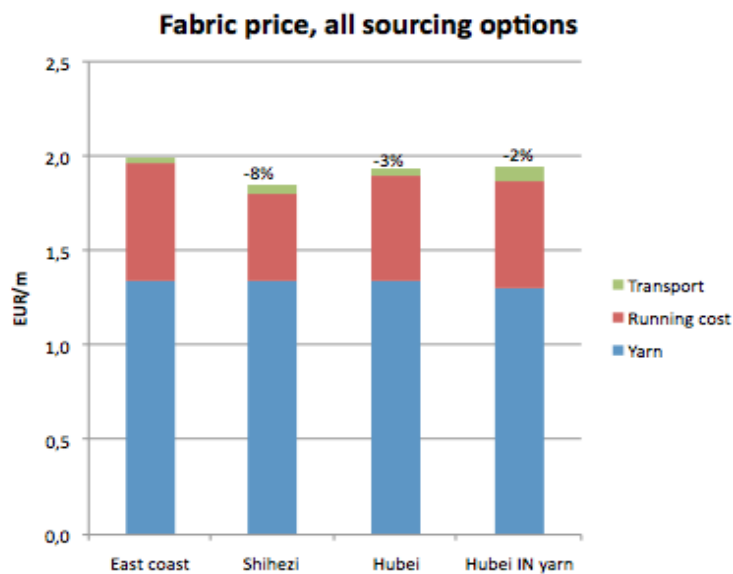
Graph 7. Fabric price in Xinjiang is 7,5% cheaper than fabric produced on East coast with India yarn (Case study IKEA Trading, 2012)

⁵ It is assumed that the objective is to transport the fabric to the Chinese East coast.

savings that can be obtained in Xinjiang.

The other sourcing option IKEA currently evaluates is to move suppliers to another inland region where costs are lower. As outlined in Chapter 5, we have chosen to study the Hubei region that has a strong textile focus. Hubei has a more convenient location than Xinjiang, but the transport costs to East coast are still relatively high because of that no subsidies are given as from Xinjiang. Furthermore, the utility costs are rather high and increases with a similar pace as the East coast. However, since Hubei has a relatively convenient location it would be possible to source yarn from other countries when the deviations are large. By combining the advantage of flexible yarn sourcing with a slightly cheaper inland region, the authors investigate if a Hubei supplier thereby will produce a final fabric price that is lower than in Xinjiang. Hence, we compare Xinjiang with a Hubei supplier that can utilise Indian yarn when the market price (not the landed price) it is 20% cheaper than the Chinese yarn.

Graph 8 illustrates the following sourcing options; (i) baseline case (East coast supplier with Chinese yarn), (ii) Xinjiang with Chinese yarn, (iii) Hubei with Chinese yarn and (iv) Hubei with Indian yarn. Surprisingly, it is more expensive to use Indian yarn in Hubei than to use Chinese yarn in Hubei. Having a Hubei supplier with Indian yarn is only 2% cheaper than staying on the East coast. The reason is that the transportation increases when the Indian yarn needs to be transported to Hubei. Even if Hubei has a relatively convenient location, the transportation costs to/from the East coast are quite high. Hence, the benefit of the yarn price is eroded by the transportation cost increase. Xinjiang is still 5% cheaper than the cheapest alternative in Hubei. Hence, it is clear that Xinjiang is the most price competitive alternative.



Graph 8. Comparison of cost of producing fabric for all sourcing options (Case study IKEA Trading, 2012)

A cost saving on bleached fabric price of about 8% in Xinjiang might not seem like a significant saving. However, this calculation only takes into account the actual costs that are evident. For example, it does not include that a Xinjiang production can take advantage of the closeness to raw material. By sourcing cotton in large volumes and outsource the spinning to a price competitive spinner, this would lead to a lower yarn price than the average Chinese yarn price. Hence, the cost saving of the fabric price would be larger than 8%. However, it is difficult to assume that these additional cost savings will occur since the opposite scenario also

could arise. In an unfortunate case, Xinjiang cotton becomes significantly more expensive than the average cotton prices. Since a production in Xinjiang is very reliant on the local cotton, an increase in the cotton price there will lead to a large increase in the final fabric price and may erode all the benefits of the operational savings. It is clear in the fabric price graphs that the yarn is the main cost driver. Thus, an advantage in the raw material sourcing can lead to significant cost reductions of the fabric price, at the same time as a large increase in the yarn price could be disastrous for the textile producers in Xinjiang. Thus, one of the weaknesses with producing large volumes of the same products in Xinjiang is that IKEA is dependent on the cotton price fluctuations in the region. An East coast supplier that normally sources raw material from Xinjiang can choose to switch and import cotton from another country if the Xinjiang cotton price increases.

Since the yarn is such an important cost driver, the authors choose to rule out the sourcing option in Hubei since it is not beneficial to have a flexible yarn sourcing in this region. It is better to stay on the East coast and maintain the possibility to source raw material from other countries when the Chinese cotton prices are peaking. It may seem like an option with low potential, however, if a shift would occur in the raw material prices and the Indian yarn consistently would be 30% cheaper than the Chinese, the flexible yarn sourcing will give large benefits and the cost advantage of staying in Xinjiang is completely eroded. Still, considering operational costs, Xinjiang is the most price competitive region of the three regions investigated. In fact, even if it will not be proven in this dissertation, Xinjiang is the most price competitive region of all regions in China when it comes to producing textiles.

To conclude, the two sourcing options that remain to investigate with a qualitative perspective are the following:

- Establish a supplier, partnership or in-house production in Xinjiang with closeness to the local cotton
- Maintain current suppliers on East coast and influence them to have a flexible yarn sourcing from different countries

6.2.2. Qualitative Analysis of the Two Sourcing Options

The conclusion that can be drawn from the cost comparison is that we no longer consider the inland region as an interesting sourcing option for IKEA in China. In order to evaluate the two remaining sourcing options a framework for the qualitative factors is needed and PESTLE is a useful tool for managing this. In the PESTLE analysis, location factors are classified by source, into political, economical, socio-cultural, technological, legal and environmental factors. The prerequisite for an effective environmental analysis is to distinguish the vital from the merely important and therefore only factors relevant for the specific sourcing decision for IKEA will be included in the analysis.

Political factors relate to governmental or constitutional policies that may affect the business. As discussed in the previous chapter the latest five-year plan presented by the central government includes strong incentives to textile companies to move towards the West, by building certain industrial zones where the companies get tax refunds and are provided with cheap utility costs. Furthermore, subsidies for transporting certain goods, such as textiles, to the East coast are given. The power of the Chinese government is strong and firms operating in the country should not underestimate their impact on the industry. As mentioned, Xinjiang is one of the promoted textile regions and with the large cotton cultivation in the region there is also a strong initiative from the local government as well to attract textile industries to come there. The local government is offering very low utility costs, provides capacity in water treatment plants, tax reductions and cheap or free land to companies that want to invest. For the current sourcing options the political factors are in clear favour for Xinjiang. There is a risk that in the future the government will even try to force the textile industry away

from the East coast because of the lack of resources there. The disadvantage of being in Xinjiang is a higher level of political instability in Xinjiang than on the East coast. The minority populations in Xinjiang have historically been fighting against the Han Chinese. However, none of the textile producers or foreign investors that we interviewed in Xinjiang has suffered from the occasional political instability.

Economical factors include the industrial economic situation, taxation issues, exchange rates, specific industry factors, customers and distribution routes. What can be mentioned for the remaining sourcing options are first and foremost, that they are different regions in the same country, which makes taxation, trade and exchange rates similar for the two options, even if local taxation is differentiated and benefit the Xinjiang sourcing option. Concerning the industry, it is important to remember that the East coast has a long textile history with a large number of textile players in the region, while Xinjiang recently became a textile region. Xinjiang has for a long time been a key region for cotton cultivation and naturally ginning and spinning companies have come to the region. To conclude, Xinjiang has a large base of companies in the earliest stages of the textile value chain, while the East coast has a large base of the later processes. Therefore it is easy for a company investing in a middle process (like weaving and wet processing) to find suitable suppliers in the region while there are not many customers there, who instead are located in other parts of China. However, the last ten years there is an increasing trend of large textile producers down streams in the value chain that make large investments in Xinjiang to take advantage of the beneficial utility costs and subsidies.

The East coast has a large advantage when it comes to distribution. The suppliers are close to the ports in China and the infrastructure within the regions is well developed. Besides, IKEA has all Trading offices and stores in the Eastern part of China. The infrastructure between Xinjiang and the East of China is under development, and even if the government is focusing on improving the cross-country infrastructure there is much to be done. As mentioned in the empirical chapter, there is a lack of train capacity going from Xinjiang, which creates waiting times. Together with the long distance this gives long lead times of around one month for transport with train. Thus, if reliability and short lead times are crucial factors for a company, it is not beneficial to operate in Xinjiang.

Socio-cultural factors of interest for the present study are demographics, education levels and ethnical groups. A problem for IKEA in Xinjiang could be to find enough labour with adequate textile competence since it is a relatively uneducated region that in general has a scarcity of labour. For the East coast suppliers this is not a problem where they have a long tradition of educating textile workers. The managers of the industrial zones in Xinjiang claimed that the lack of labour was not a large problem, since they considered the region as an attractive region for migrant workers from the poor inland regions of China. Because of the lack of labour the salaries are almost as high as on the East coast. This attracts migrant workers from the inland since they receive the same salaries but can afford higher living standards than if they had migrated to the East coast.

What also should be taken into consideration is the ethnical population in Xinjiang, including both Han Chinese and minority groups such as the Muslim Uyghur. Most factories had mix of workers in the factories and something to take into consideration is that the populations speak different languages and therefore middle management needs to be bilingual and moreover different religious holidays must be respected. On the East coast there are almost solely Han Chinese workers that all speak Mandarin, which makes the managing easier.

Technological factors cover technological knowledge, manufacturing maturity and capacity, technology access and innovation potential. As mentioned, the East coast of China is a traditional global textile area, hence, the technology and knowledge is already there. In Xinjiang there is strong knowledge regarding the first

part of the textile value chain but not further down stream in the value chain, which is of interest for IKEA. Further, the region is located far away from any developed country or region and technology access may be low. On the other hand China in general is lagging behind concerning productivity and innovative technologies in the textile industry. The suppliers on the East coast often have old machines from Chinese manufacturers that are not as efficient as the Japanese or European machines. Furthermore, there is a culture of not adapting rapidly to new innovations. If IKEA invest in Xinjiang, alone or together with a supplier, they have the possibility to create an innovative factory with state-of-the-art equipment and high efficiency.

Environmental factors are important for IKEA and these factors are closely associated to what was recently discussed about technology and innovation. New machines and other innovations in textile production are not only more efficient they are also more sustainable. The new weaving machines require less electricity, there are new bleaching processes using less water and chemicals and new printing technologies using softer pigment that is better for the environment. The suppliers on the East coast are not up to date with the latest and most environmentally friendly techniques and the factories are often dirty and in some cases unsafe for the workers. If IKEA would be involved in a start up of a new production in Xinjiang a lot of effort would be put on implementing the latest, most environmentally friendly innovations, to reduce both costs and the environmental footprint.

The Better cotton initiative is another aspect that would benefit from a Xinjiang production and facilitate today's problem with the traceability of Better cotton throughout the supply chain. As mentioned in the empirical chapter, the traceability issues start already at the first processes of the textile supply chain. It is difficult for IKEA to keep control of that the products they buy from end-suppliers actually contain Better cotton. By investing in weaving and wet processing in Xinjiang, IKEA would gain a better control of what material is used both in the invested weaving and bleaching process, but also forward and backward in the value chain. By being in Xinjiang IKEA is closer to the Better cotton farmers and can help them increase the cotton output. These are important advantages that are difficult to obtain on the East coast.

Legal issues can be associated with working time directions and minimum wages. As mentioned, the salary levels on the East Coast and in Xinjiang are similar. Because of the extremely fast development on the East coast, the chances are that the salary levels will increase more rapidly there. When it comes to working time directions, IKEA are working with IWAY and these working requirements are often higher than the local requirements in China. IKEA has faced some problems with implementing the IWAY requirements in China but has always prioritised IWAY implementation without allowing for any compromise. If a new production would be started, it would be customized to IKEA and the aim would be to be compliant with IWAY immediately.

In this section the two most interesting options to consider for IKEAs sourcing of textiles in China where analysed, according to the PESTEL analysis. In the following section the qualitative factors from this section, together with the quantitative factors of the cost comparison will be summarized and further analysed in the SWOT analysis.

6.3. SWOT of the Two Sourcing Options

In the SWOTs the internal analysis will be combined with the external analysis, including the qualitative factors from the PESTLE and the quantitative factors from cost comparison of the previous section. First the strengths, weaknesses, opportunities and threats concerning staying on the East coast with a flexible yarn sourcing will be discussed. Thereafter the second alternative of producing or sourcing textiles in Xinjiang will be analysed with the same framework.

6.3.1. East Coast Supplier with Flexible Yarn Sourcing

Strengths. One of the most important strengths of producing textiles on the East coast is that the experience and know-how already exist there. China's East coast has been a centre for textile production for a long period of time and therefore technology and skilled labour already exist. However, what can be argued in the favour of Xinjiang is that many of these large textile companies are moving to the West regions and bring the technology and knowledge. Another important strength with the East coast alternative is the possibility to have a flexible yarn sourcing. Because of the fluctuating prices on yarn, and the differences in prices between markets, having a flexible yarn sourcing can be beneficial. In Xinjiang it is difficult to source yarn from other countries in the same way because of the inconvenient location. On the East coast, IKEA can influence their suppliers on yarn sourcing locations and buy large quantities to assure a low price. IKEAs global presence gives a good overview on where to source yarn from, and they have the possibility to benchmark between their trading offices. Furthermore, the Chinese government is focusing on developing the infrastructure in the whole country, but today it is much more developed on the East coast. The lead times from fabric to product will be shorter than if the fabric was produced in Xinjiang. This sourcing option is fairly easy to implement since IKEA already has an established supplier base on the East coast.

Weaknesses. The largest disadvantage with this sourcing option is something that has been mentioned several times throughout this report; the salaries and utility costs are rising rapidly on the East coast, sometimes with over 15% per year. The government seeks to move the textile industry inland, which means that this industry is not favoured on the East coast. Even if many experienced textile companies operates on the East coast, many of them are using old and inefficient machines and have a tradition of using more labour than needed which is a habit from a time when labour was cheap in China. Even if some productivity improvements are happening, the pace of these improvements is much slower than the salary and utility cost developments. The advantage of having a flexible yarn sourcing is partly cancelled because of the Chinese suppliers' preference to use Chinese yarn because of quality reasons. For higher quality yarn the differences in prices are also smaller than for low qualities. This has historically meant that flexible yarn sourcing was only beneficial in about 15% of the cases. Even if there often is a favourable price difference for Indian yarn, the total cost saving on fabric price is not as large as the Xinjiang alternative.

Opportunities. With this alternative IKEA has the opportunity to be flexible, not only regarding the yarn sourcing location, but also regarding which suppliers to collaborate with on the East coast. It is also the best alternative if IKEA in the future wants to exit the market or diminish the supplier base in China. If IKEA instead would invest in Xinjiang they would be more dependent on that region. With the East coast alternative, IKEA can also be more flexible regarding the sourcing of Better cotton and source from other countries where they offer the most competitive prices, instead of being reliant on Better cotton farms in Xinjiang.

Threats. A threat with this alternative is that prices on Indian yarn will increase because of the growing domestic consumption, which would lead to that the benefits with having a flexible yarn sourcing disappear. Another threat is that the Chinese government actually forces textile companies to move inland which eliminates the possibilities to stay on the East coast. The government may also take away the subsidies on cotton from Xinjiang. Today, East coast suppliers source a large part of their cotton from Xinjiang. Because of the will of having more value-adding processes of the textile supply chain in Xinjiang, the government might take away the subsidies on cotton and only give subsidies on yarn, fabric or finished products. Hence, Xinjiang cotton becomes more expensive on the East coast.

Strengths

- Experience, technology and skilled labor
- High flexibility to source yarn from other countries and yarn is most important cost driver
- Developed infrastructure on East coast
- Short lead time from fabric to product
- Strategy easy to implement

Weaknesses

- High and rapidly increasing usage costs on East coast and frequent power shortage
- Using old/inefficient machines. Low productivity and high labor usage
- No favorable government policies
- Sourcing Indian high quality yarn has only been favorable in 15% of the months
- Suppliers often choose Chinese yarn instead of importing for quality reasons

Opportunities

- IKEA can affect supplier's sourcing choices and production
- IKEA can change end-supplier
- Import Better cotton yarn
- Easy to exit market and produce textile in other country

Threats

- Changing policies in India and increase of consumption → imported yarn more expensive
- Prices increase even faster than predicted
- Chinese government forces textile companies to move away from East coast → Suppliers disappear
- No subsidies for cotton from Xinjiang in the future

6.3.2. Producing or Purchase Textiles in Xinjiang with Closeness to Local Cotton

Strengths. As was shown in the cost comparison, Xinjiang is the region with the lowest utility costs in China and the price development is slower than on the East coast. The lower running costs give IKEA a saving on about 8% on bleached fabric. The closeness to raw material is another important advantage with being in Xinjiang. It will give a better control of the raw material cost and improve the traceability to the Better cotton, which in turn will increase the cost savings further. The textile focus from the central and the local government give benefits such as tax reduction, transport subsidies, cheap land prices and an important political support for investing in the region. As was discussed in the empirical chapter, labour costs were not as beneficial as expected in Xinjiang. On the other hand large investments in cotton-picking machines are done in the region which make cotton prices less dependent on wage increases.

Weaknesses. Being close to the raw material can also be a weakness since being in Xinjiang will make IKEA more dependent on the cotton prices in the region. Xinjiang cotton is normally of better quality and has therefore sometimes a higher price. It is difficult to source cotton or yarn from other countries because of the

inconvenient location. Another disadvantage with being reliant on Chinese cotton in general is that the domestic need will always be high and therefore Chinese cotton will always have a fairly high price compared to the global market. For the later processes such as weaving and wet processing there are not many existing suppliers in the area and IKEA would have to invest alone, form a partnership with another textile player or support a supplier to move from the East coast to Xinjiang. To support a supplier to move to Xinjiang can require a high implementation effort since there are not many textile factory owners who want to move so far away from family and home. The 4000 kilometres to the East coast will moreover give long lead times and make it difficult for IKEA to control the production.

Opportunities. There are many opportunities for IKEA if present in Xinjiang. By investing in a new factory from scratch an efficient machine set-up can be used, customized for IKEA needs. This set-up will be more sustainable with lower electricity, water and chemical usage. Waste from the production can be minimized and recycled in other IKEA products. IKEA can use the factory as a test lab for all their textiles globally and internal quality trainings can be held there. The product development can be moved further back in the textile value chain, and IKEA can experiment with new materials and cotton blends in the production. IKEA can develop the Better cotton farms, by for example supporting them with new machinery. In a long-term perspective, the Euro Asia highway will become more efficient, which will create a possibility to transport finished products directly to Europe. In China, many are talking about the New Silk Road that will transport goods from China East coast, through Xinjiang all the way to Europe.

Threats. The largest risk with being in Xinjiang is the low flexibility, since it is hard to exit when IKEA has invested in a close collaboration or in-house production there. It might be difficult to find a partner to invest with because of the inconvenient location. Another risk is that the transport subsidies disappear or that the goods need to be transported by truck all the way because of the capacity problem. Both these risks would have a large impact on the transportation cost and would give a negative effect on the Xinjiang alternative's competitiveness. There is also a small risk that the labour situation is more difficult to solve than the representatives in Xinjiang claimed and therefore the labour costs would increase as fast as on the East coast.

Strengths

- Lowest running costs in China and slower growth than East coast give operational savings of 27% and total fabric savings of 7-8%
- Closeness to raw material gives stable cotton price and Better cotton traceability
- Textile focus from government gives transport

Weaknesses

- Dependent on Xinjiang cotton. Government protected price on cotton.
- China domestic needs for cotton will always be high → high cotton price
- Long waiting/lead time (min 30 days to East)
- Far away from IKEA trading office

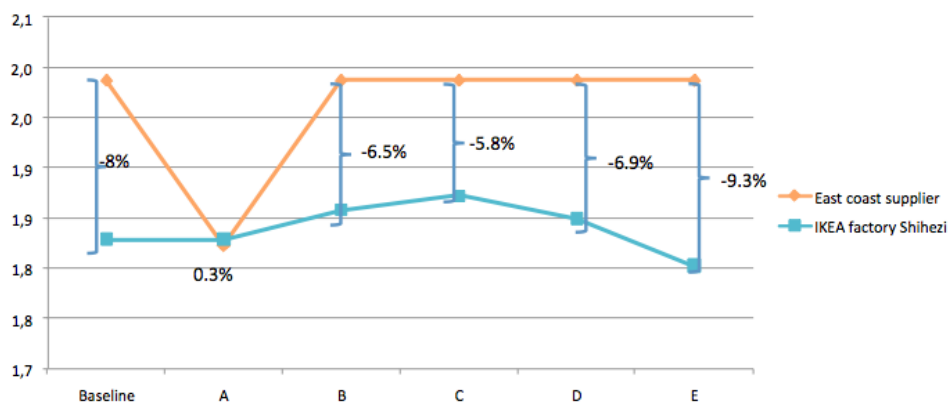
Opportunities

- Efficient machine set up with high productivity, customized to IKEA needs Sustainable production. Chemical reductions and minimized/recycled waste
- Train IKEA people internally for e.g. quality
- 100% Better cotton. Support farmers
- R&D centre. Explore new materials
- Source cotton from Middle Asia (Uzbekistan)
- Eurasia highway and new railways to East China give shorter lead-times

Threats

- Low flexibility and hard to exit
- Transport subsidies disappear (container transport cost would increase with 60%) or forced to use truck
- Labor cost increase with same pace in Xinjiang as on East coast
- Difficult for IKEA to find textile suppliers to collaborate with

In order to understand the importance of some of the threats and opportunities outlined above, we choose to conduct a sensitivity analysis. By elaborating with several different scenarios we see which ones that lead to the largest changes in fabric price. The scenarios that have the largest likelihood of occurrence or a large impact on fabric price are illustrated in Figure 26 below. On the left hand side is the baseline case with the original assumptions that we outlined in the empirical chapter and the cost comparison, which gives a cost saving of about 8%.



Scenario A: Indian yarn price becomes 30% cheaper than Chinese yarn price

Scenario B: Government take away transport subsidies

Scenario C: Because of long leadtimes, 30% of the produced fabric need to be sent by truck to the East

Scenario D: Labor cost increase as fast in Xinjiang as on the East coast

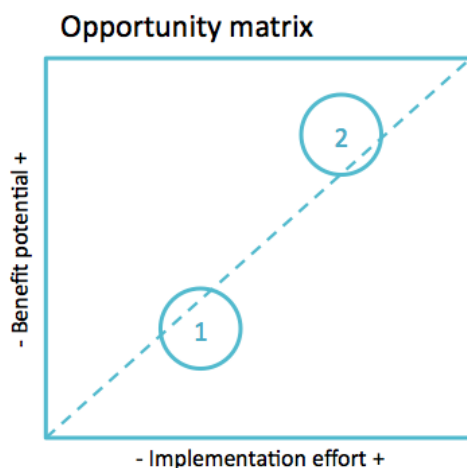
Scenario E: The innovative factory can reduce chemicals with 50% in the bleaching process

Figure 26. Sensitivity analysis of the sourcing options (Case study IKEA Trading, 2012)

Since the original assumptions were made with a long-term perspective since the investment would be done in about 2016, there could be radical changes of the original scenario. Hence, we elaborated with different scenarios that would change the cost structure. The scenarios that resulted in a visible change in the final fabric price are illustrated in this sensitivity analysis. Even though we make radical changes in the assumptions in the different scenarios, the IKEA factory in Xinjiang is almost always producing fabric that is 6-9% cheaper than on the East coast. This shows that the cost comparison is rigorous and trustworthy. Scenario A is the only scenario where the cost savings completely disappear because of the large savings in yarn price on East coast with a flexible yarn sourcing. However, this scenario has a low likelihood of occurrence. Historically, the Indian yarn price was 30% cheaper than Chinese yarn in only 2% of the months the last five years (EmergingTextiles, 2012). Still it shows that yarn is the most important cost driver for fabric price and the largest risk with being in Xinjiang is the strong dependence on local cotton prices.

6.4. Opportunity Matrix

The SWOT analysis, presented in the previous section, leads us to the opportunity matrix. The two remaining sourcing options for IKEA textiles in China will be plotted by the two axes implementation effort and benefit potential.



The first option to continue with the current supplier base on the East coast and implement a flexible yarn sourcing is circle 1 in Figure 27. This alternative has a relatively low implementation effort since the supplier base on the East coast is already established. IKEA has already started a discussion with their suppliers about importing yarn from India and other South Asian countries. The interest from suppliers has been weak since the yarn is not price competitive enough and the quality is often not sufficient. As evaluated in the cost comparison, importing high-quality yarn from India is only beneficial in about 15% of the time, which gives this alternative relatively low benefit potential.

Figure 27. The sourcing options are analysed according to implementation effort and benefit potential in the opportunity matrix (Case study IKEA Trading, 2012)

For the second alternative of producing textiles in Xinjiang, circle 2 in the figure, the implementation effort is high because of the investments that need to be done for starting the production. For the weaving and wet processing there are not many existing suppliers in the region and IKEA would have to invest alone, form a partnership with another textile player or support a supplier to move from the East coast to Xinjiang, which leads to a high implementation effort. On the other hand, this is the alternative that clearly gives high benefit potential. Firstly, it reduces the fabric cost of at least 8% compared to the East coast and the saving is increasing for every year. Secondly, the saving potential is even higher if more efficient machines and innovative techniques are used in the production together with a cost control of the cotton. Thirdly, this alternative will improve the sustainability of IKEA textiles with better traceability to Better cotton, IWAY compliance and more resource-efficient machines and techniques used in the production. Thus, even if the implementation effort is significantly higher than the East coast option, the benefit potential is very high and therefore the second option is placed above the dividing line in Figure 27.

To conclude, the competitive advantage of Xinjiang is that it is the cheapest region in China for producing bleached fabric. It is an alternative with many opportunities and IKEA can have an innovative factory there with a more efficient and environmentally friendly production, R&D centre closer to the value chain and improved traceability to Better cotton. In addition, the development in China favours this alternative and it is therefore a long-term strategic alternative. However, the alternative also includes several risks with the dependence on raw material from the region as the most significant one. On the other hand, the East coast alternative is also risky since the government aim to move the low-tech industry from the region and conditions are deteriorating fast. Therefore, the alternative that IKEA should further consider is to be present in Xinjiang in order to lower costs and at the same time maintain or improve quality and sustainability. In the coming section this alternative will be discussed from a perspective of how IKEA should pursue this sourcing option, arguing for what level of vertical integration in the value chain that is optimal.

6.5. Outsourcing or Vertical Integration

At this stage, when the most optimal sourcing option is presented, the next important decision is how the firm should pursue this sourcing option in order to gain the most competitive advantage. Hence, the level of vertical integration in the value chain needs to be evaluated by analysing the strategic importance of the capability. In order to do this the outsourcing matrix presented in Section 4.2 will be used as the analytical tool. In this matrix, the X-axis consists of a number of factors that indicates the strategic importance of the competence. The Y-axis outlines factors important for deciding how competitive IKEA is compared to a supplier for this certain competence. All factors on both axes are weighted according to the importance for the decision in the present study. In the following section the factors will be ranked and two coordinates will be provided that will give an indication on what strategy to pursue. Thereafter, this will be further evaluated with other type of parameters that are not covered in the outsourcing matrix.

As the outsourcing matrix illustrated in Figure 28, the X-axis will indicate how strategically important the textile category and the products of interest within the category are for IKEA. A high ranking of a factor mean that the category is important according to this certain factor. Textile is originally not the most important category for IKEA, compared to for example flat line. However, IKEA strives to have a range that covers every part of a home and textiles are involved in most parts of the interior of a house. Therefore the strategic importance of the competence is ranked as medium (3) for factors such as future growth and criticality to meet performance objectives. There is also a medium high risk of substitution of the category, since there are new materials developing within textiles that might substitute cotton textiles in the future. However, cotton textiles are by far the largest part of textiles today and will most certainly always be a substantial part of textiles. When it comes to financial volumes the textile category is large, especially for IKEA China. IKEAs type of textiles is in general easy for competitors to imitate and this factor is therefore ranked as low. The total strategic importance of competence, including the weighting, is therefore slightly over medium (3.2).

On the Y-axis the competitiveness of IKEA relative to a supplier for the set up presented in the study will be ranked. If IKEA invest, they have the possibility to produce large volumes of products customized for the IKEA range and invest in the most efficient machinery for that factory. This could give a cost advantage compared to a supplier. On the other hand, a supplier might produce for more customers than only IKEA and can therefore have larger total volumes. The cost efficiency factor is therefore ranked as medium. Moreover, lead time and quality performance will probably be similar for an in-house or an outsourced production, since both are reliant on the quality of cotton in Xinjiang and both have long lead times to the East coast. If IKEA invests, the firm is locked in with certain machines and capacities, which will give a lower

flexibility than if sourced from suppliers. An IKEA-owned factory would improve the product development since it can exist further back in the supply chain, where new fabric constructions or blends can be tried out in an early stage. Regarding the last factor, suppliers have a large advantage when it comes to experience and textile knowledge, since IKEA has never run a textile factory before anywhere in the world. The competitiveness compared to supplier for the textile competence results in a score lower than medium (2.6).

As we can see in Figure 28, the provided coordinates result in the lower right corner, indicating that IKEA should maintain control and collaborate with a supplier. This reflects that the competence is strategic but insufficient to compete effectively and IKEA should explore alternatives such as alliances or joint-ventures. One alternative is to discuss with existing suppliers if they are interested in investing in Xinjiang. Another alternative is to contact external textile players that already showed an interest in the region or already are acting there. It is important that the factory is dedicated to the IKEA products even if the company invests together with a supplier in order to not lose the benefits of having an IKEA production discussed earlier.

Outsourcing Matrix

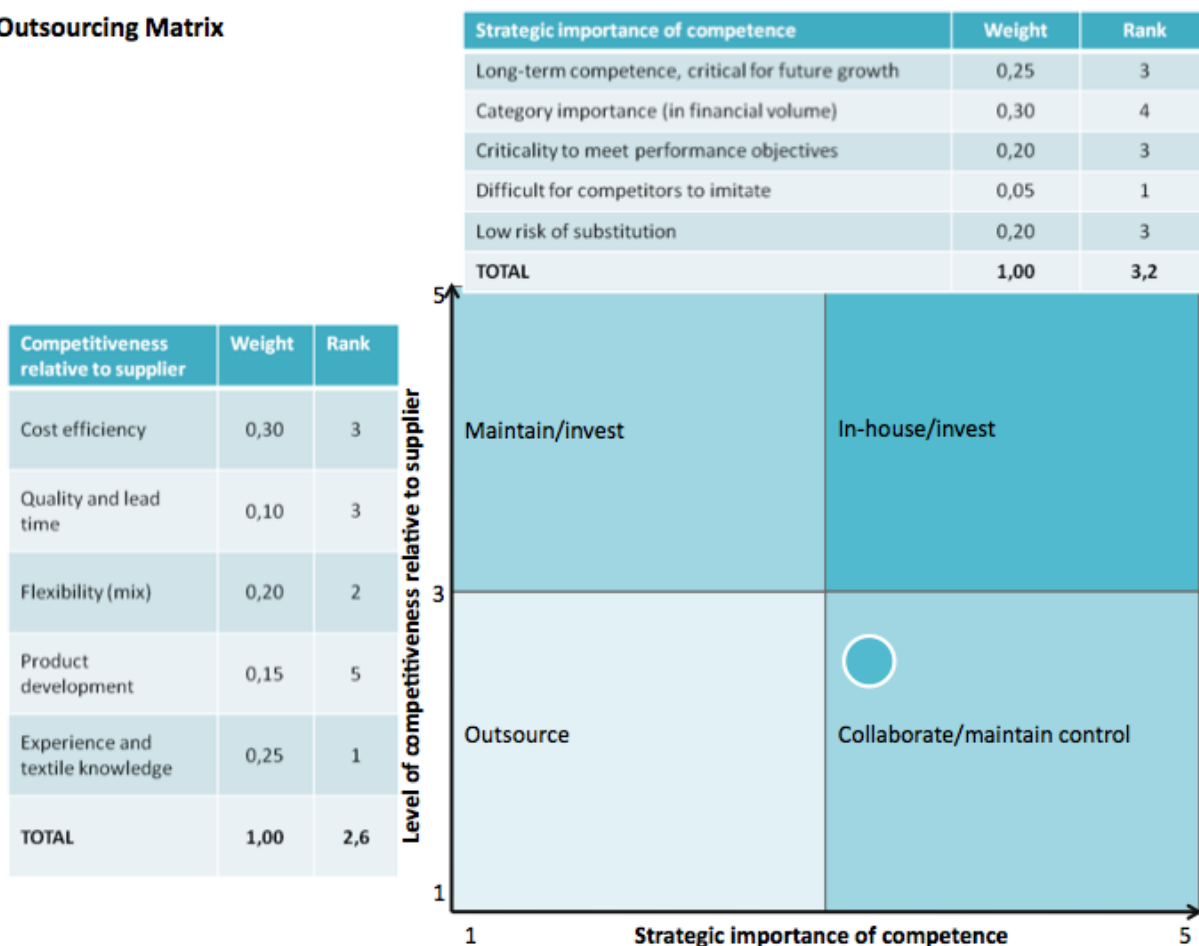


Figure 28. Outsourcing matrix including the ranking for the current decision (Case study IKEA Trading, 2012)

After this evaluation according to the outsourcing matrix, there are some additional factors that need to be taken into consideration regarding the characteristic of the value chain. As was discussed in Chapter 4 some of the characteristics that can influence the make or buy-decision are the coordination requirements in the supply chain, the level of transaction costs, the differing scales in the value chain and the need for flexibility, and these characteristics will now be discussed with the perspective of the suggested sourcing option.

Coordination Requirements. IKEA has already created close relationships to their textile suppliers in China and information is shared very freely on an ongoing basis. Investing together with a partner would take this relationship a step further where high coordination effort is needed. Therefore, the partner must be very dedicated to the relationship with IKEA and the strong demands. Then again, the partner obtains the security and the resources from working with IKEA as a partner. For IKEA, the integration backwards requires more coordination within the company as well. However, there are also advantages, for example can the training of employees and the product development be conducted in different levels of the textile value chain. Furthermore, an internal benchmarking can be exercised between IKEAs production and other textile suppliers in different regions.

Transaction Costs. Van Weele (2010) claims that the textile industry has rather low transaction cost, which would mean that it is suitable to outsource. With an in-house production IKEA would lose the flexibility and possibility to switch to another supplier as they can today and this inflexibility will increase with a partnership. However, a vertically integrated textile supply chain exist which proves that the transaction costs can be reduced with a total ownership.

Scales in the Value Chain. Normally, a weaving production produces smaller volumes than a bleaching production. Hence, the bleaching owner purchases woven fabric from many different weavers. For the production volumes interesting for IKEA, this would mean that a large weaving factory is needed, while the bleaching production is of a rather standardised size. It is still common that textile players have both weaving and bleaching in an integrated supply chain. This creates the possibility to have a continuous flow between the processes. Moreover, there is no need for double-testing the quality of the fabric both after the weaving and before the bleaching. Instead only one quality control is conducted.

Flexibility. Grant (2010) argues for that if there is a need for entrepreneurship, flexibility and drive in the separate activities, there are large advantages with outsourcing. The textile industry is a mature industry and innovations are more on a strategic level than technical. Flexibility is not of major importance in this case since we are producing bleached fabric of a standardised construction. Hence, the flexibility mix can be added later in the value chain. Furthermore, a joint venture enables IKEA to be innovative in the total value chain, both before and after the actual ownership.

To summarise, the outsourcing matrix concludes that IKEA should maintain control and invest together with a partner in a joint venture. We recommend IKEA to do an equity investment together with an experienced textile player in a 50/50 ownership. This will give IKEA the necessary control of the supply chain at the same time as the textile player can contribute with strong experience and competitiveness in the textile production. Regarding transaction costs, flexibility and coordination these characteristics of the value chain would not make us differ from this conclusion. As outlined in the literature, the trend is in general going towards an increased level of outsourcing. Instead the actors should have a strong interdependent relationship with a network of suppliers, customers and other influencing actors. These strong relationships are something IKEA already has in the textile category with its' current suppliers. The main issue for IKEA is that it is difficult to stretch this relationship further backwards in the supply chain, beyond the end-supplier. It is essential for IKEA to improve these distant relationships in order to get an insight into what the real costs are of raw material and production. By investing in a weaving and bleaching joint venture, IKEA would gain better insight and cost control both upstream and downstream in the value chain, which will reduce the difficulty of controlling the suppliers' supplier. By building the network both backwards and forward, IKEA will gain new experience and knowledge, such as how to produce innovative textiles and avoid raw material fluctuations.

This set up would also facilitate for future investments if IKEA would decide to continue the integration down-stream in the supply chain.

When this study was conducted at IKEA, a lot of time was spent on analysing and calculating what the production set up would look like in reality, spanning from large weaving machine investments down to details regarding pump and cable costs, in order to understand how large the equity investment would be. The total investment sum for the joint venture is confidential and irrelevant for this academic dissertation. What can be mentioned is that because of the increasing cost savings for each year and the large volumes produced in the factory, the investment would be paid back rather quickly with a payback period of less than five years. However, the sourcing option should not only be analysed from a quantitative perspective since there are other qualitative parameters with a fundamental importance for this investment. In Chapter 7, we will further discuss the disadvantages with financial tools applied on long-term, innovative investments that can lead to the wrong decision to kill an investment because of an unfavourable net present value.

6.6. Recommendations to IKEA – Be Present in Xinjiang

We recommend IKEA to invest in a joint venture with a textile producer in Xinjiang and produce bleached fabric in a weaving and bleaching set up, using the locally produced Better cotton.

IKEA should be present in Xinjiang and produce high range bed linen and natural filled fabric. Xinjiang is the cheapest region in China for producing bleached fabric for the needed qualities. In the weaving and bleaching processes, production cost can be reduced in Xinjiang because of the low cost for electricity and steaming. This will give IKEA a price competitiveness, where the firm is able to provide its customers with lower prices for bed linen, pillows and quilts. IKEA should invest together with a partner in a joint venture. This is recommended since the textile category is strategically importance for IKEA, at the same time as IKEA has a low level of competitiveness compared to suppliers regarding textile production. The innovative factory should be dedicated to IKEA products, which reduces costs further with a more efficient production and economies of scale. The factory in Xinjiang also gives IKEA the advantage of having R&D in all parts of the value chain, which enables product, material and process innovations in the future. Moreover, IKEA should improve the environmental and social sustainability in the production by reducing energy, water and chemical usage in the factory and by having a factory completely aligned with IWAY. Being present in Xinjiang gives IKEA the advantage of being close to the raw material and in particular the Better cotton farms. IKEA will gain a better control of the raw material cost and will assure that Better cotton is used in the products. Besides, in the coming future the Euro-Asian highway will have improved efficiency which will give Xinjiang a transportation route to Europe, the largest market for IKEA.

A typical sourcing characteristic for IKEA is that the company has a rather long-term sourcing perspective compared to other retailers as mentioned in the literature. The recommended sourcing strategy fits well with IKEAs long-term strategy. The competitive advantage created is durable, because the cost advantage of being in Xinjiang will increase with time. The East coast is developing faster, and the lack of resources such as electricity is becoming more and more urgent with the growing middle class. Xinjiang, on the contrary, have large natural resources and can keep the low prices on utilities such as electricity and steaming. Xinjiang is one of the largest cotton regions in the world, and being close to the raw material will help IKEA secure and stabilize the raw material supply and ensure a more sustainable cotton production. Since cotton will always exist in the region, it is fair to believe that the local government will continue to have a strong textile focus and support the textile players.

Furthermore, the suggested sourcing option is hard to replicate. IKEA has the possibility to invest in a large production with standardised and customized products and not many of the firm's competitors have the resources to do this. IKEA has showed before how they have the power and the network to change the industry, and by setting up an IKEA textile production the company creates a path for new strategic innovations. For example, IKEA was one of the main contributors to the Better cotton initiative. By demonstrating for customers and competitors that it is possible to have a more sustainable cotton production without increasing the prices on the textile products, this puts pressure on other retailers to use sustainable cotton in their products. Concurrently, IKEA has proved before that they can create a unique competitive advantage by doing the opposite of what competitors do and therefore create a sourcing strategy that is hard to replicate. A typical example is the Swedwood production that produces the flatline products. When other furniture retailers outsource the production, IKEA shows that it is possible to have an automated production that is fully vertically integrated and still have some of the lowest prices in the industry. IKEA has thus an experience of vertical integration that is very successful, which is an advantage if IKEA decides to integrate backwards in the textile supply chain.

How does the textile production in Xinjiang fit with the IKEA vision of "*Creating a better everyday life for the many people*" then? To begin with, this sourcing option will lower the product cost, so that as many people as possible can afford the bed linen, quilts and pillows. Furthermore the many people will get products with improved quality because of the high quality production with proactive quality improvements. Furthermore the more sustainable Better cotton will be used in the products and a more sustainable production will be used throughout the supply chain, which creates a better life for the Xinjiang farmers and factory operators, as well as the society as whole. To remember, IKEA uses a substantial part of the cotton in the world, so the firm has a strong impact and can make a large difference. These recommendations fit well with both IKEAs vision and sourcing characteristics and will give IKEA a unique, long-term competitive advantage in the textile industry.

SUMMARY - ANALYSIS

- IKEA can learn from other companies' sourcing strategies. For example, Li & Fung is strong in price competitive raw material sourcing and Esquel has R&D throughout the vertically integrated supply chain
- The products of interest are high range bed linen and filled fabric, since they have large volumes of standardised constructions sourced in China and they consist of 100% high quality cotton
- The processes for IKEA to be involved in are weaving and bleaching, which gives a control of both costs and raw material upstream and downstream in the value chain
- The cost comparison outlines that producing bleached fabric in Xinjiang is 8% cheaper than on the East coast and Hubei is 3% cheaper than East coast. It is not beneficial to have a flexible yarn sourcing in Hubei so East coast with a flexible yarn sourcing is more beneficial
- Strengths with the Xinjiang option are closeness to raw material, local government support and low utility costs. Weaknesses are labour shortage, lack of potential suppliers and location
- Strengths with East coast option are existing experience, flexible raw material sourcing and developed infrastructure. Weaknesses are high, increasing utility and labour costs and traditional, inefficient production
- The Xinjiang option has a high implementation effort but an even higher benefit potential, which is why this is the alternative IKEA should consider in order to lower costs and at the same time maintain or improve quality and sustainability
- Since textile is a strategically important competence for IKEA, at the same time as the level of competitiveness compared to textile suppliers is quite low, IKEA should gain control of the textile production and invest together with a partner in a joint venture
- The strategic sourcing option fit well with IKEAs sourcing characteristics and with the vision to create a better everyday life for the many people

7. Conclusion

This chapter seeks to answer the main research question of the study. By answering the six sub-questions that are the backbone to the structure of this dissertation, it will give us an answer to the main research question:

What is the optimal strategic sourcing option for IKEA in China that will lower costs and concurrently maintain or improve quality and sustainability of the home textiles, both with respect to the supply chain and innovative textile solutions?

The sub-questions will be answered in the same order as the structure of the dissertation, starting from the previous research within global sourcing. The sixth and final sub-question regarding the major contributions to scholarly knowledge will be answered in the discussion, Chapter 8.

1. What does state-of-the-art scholarly knowledge about global sourcing tell us about types of problems and opportunities that should be further considered in the present IKEA study?

Today the competition is between entire supply chains, not companies, and there is an increasing trend towards outsourcing with long-term, close relationships with the actors in the firm's network. Global sourcing is becoming increasingly complex, going beyond low-cost advantages. A typical industrial firm spends more than half of every sales dollar on purchased products. Consequently, the complexity and importance of these issues is making the company's global sourcing strategy one of the key determinants of a sustainable competitive advantage. The sourcing strategy can be divided into the internal, business strategy, and the external, corporate strategy. The business strategy involves identifying a company's current capabilities and further develop future capabilities that are needed to reach a strategic intent. An external strategic question is what products to make or buy. Another issue is to analyse the implications the national environment has on the firm's competitive advantage.

The previous research regarding the textile industry tells us about the raw material importance for cotton textiles and a description of the complex textile supply chain. China is the world's largest textile exporter and has the largest production of cotton globally. It is clear that retailers can have very different sourcing strategies and still be successful in their different ways, depending largely on what performance objectives that are important for the companies.

2. What are the most essential characteristics of IKEAs textile sourcing? What are the strategic priorities with this particular state of affairs?

IKEA is vertically integrated for some categories such as wood furniture, and work with suppliers for other categories, which is the case for textiles. Cost is the most important performance objective for IKEA and the firm is facing difficulties to be price competitive for some textile products in China. IKEA works in long-term relationships with suppliers and requires close insight in the suppliers' operations to constantly be able to reduce costs and improve the production. Historically, we have seen how IKEA uses its network of experts in order to direct the development in a specific way and speed up the process. Since IKEA is such a large player in the global textile market, IKEA can act as a strong and powerful change agent.

Another strength with IKEAs sourcing characteristics is that the company is adamant when it regards the compliance of IWAY that assures satisfactory working conditions in the supply chain. Furthermore, IKEA was one of the founders of the Better cotton initiative that seeks to improve the global cotton cultivation

worldwide to make it more economically, environmental and socially sustainable. In 2011 the Better cotton project started in China in the Xinjiang region.

3. Given the economic conditions and the development trends in China, what strategic sourcing options are available for IKEA to consider?

China is becoming increasingly expensive with a growing middle class and the differences within the country are substantial. The East coast of China is more developed than the inland and is facing high salary increases, high pollution levels and electricity shortages. In the new five-year plan created by the Chinese government, the focus is on developing inland regions by moving many low-cost and traditional industries to the West of China where the costs are low and there is an abundance of natural resources. Wages, water and electricity costs are projected to increase significantly faster on the East coast than in the inland regions. The cheapest region in West of China is Xinjiang, which is also the region with the largest cotton production and a strong textile focus from the local government. Another important textile region is Hubei that has a more convenient location than Xinjiang.

Raw material has an important role in the product cost breakdown for cotton textiles and in general the cotton is cheaper in India than in China. Therefore, IKEA is considering to source cotton yarn from India, with the aim to reduce the final product price. Given the economic conditions in China and the raw material trends, these are the strategic sourcing options for IKEA to consider:

- Have a supplier, partnership or in-house production in Xinjiang with a closeness to the local cotton
- Maintain current suppliers on East coast and influence them to have a flexible yarn sourcing from different countries
- Move suppliers or change to new suppliers in an inland region such as Hubei and influence them to have a flexible yarn sourcing from different countries

4. Given IKEAs resources and strategic priorities, what are the main strengths and weaknesses of aforementioned strategic sourcing options?

The processes for IKEA to be involved in are weaving and bleaching, which gives control of both costs and raw material upstream and downstream in the value chain. The main advantage with the Xinjiang option is that it gives the largest fabric price savings of 8% compared to the East coast. Other advantages are closeness to raw material, local government support and lowest utility costs in China. Main weaknesses are labour shortage, lack of potential suppliers and inconvenient location. The main advantages with the East coast option are existing experience, flexible raw material sourcing and developed infrastructure. Weaknesses are high, increasing utility and labour costs and an inefficient production. Regarding Hubei, the fabric savings are only 3% compared to the East coast and it is not beneficial to have a flexible yarn sourcing in Hubei because of the high transportation costs, which is why this alternative is the least beneficial of the three sourcing options.

5. What strategic alternative should IKEA, arguably, further consider in order to lower costs and concurrently maintain or improve sustainability and quality in the textile sourcing?

We recommend IKEA to invest in a joint venture with a textile producer in Xinjiang and produce bleached fabric in a weaving and bleaching set up, using the locally produced Better cotton. The Xinjiang option has a high implementation effort but an even higher benefit potential, which is why this is the alternative IKEA

should consider in order to lower costs and at the same time maintain or improve quality and sustainability. Since textile is a strategically important competence for IKEA, at the same time as the level of competitiveness compared to textile suppliers is quite low, IKEA should gain control of the textile production and invest together with a partner. The sustainability will be improved in the textile supply chain with an innovative factory set-up and collaboration with Better cotton farmers. The strategic sourcing option fit well with IKEAs sourcing characteristics and with the vision to create a better everyday life for the many people

The last research question, regarding the major learnings for the scholarly knowledge from the present IKEA study, will be answered in the following chapter.

8. Discussion

In this chapter the authors will answer the final research question:

6. What are the major learnings for the scholarly knowledge from the present IKEA study?

The chapter discusses the importance of looking beyond the low-cost advantages when making decisions regarding sourcing locations. The study has also contributed to knowledge regarding the remote Xinjiang region. The chapter discusses the contributions to the field of global sourcing and suggests further research in the field of interest. Further, the reader is enlightened when it comes to the difficulties in evaluating innovative, unique investments and strategies.

8.1. Beyond Low-Cost Advantages

There is extensive research on the subject of outsourcing to low-cost countries. This dissertation seeks to understand how firms can be competitive when low-cost countries have turned into medium-cost countries and how the firm should look beyond low-cost advantages. It is of uttermost importance to have a competitive purchasing performance for a multinational firm of today, and that is why this study is interesting for the business industry as well as the academia in general. Many global firms are facing the same situation, which is that what used to be cheap sourcing locations in the past, now are becoming increasingly expensive. In the present IKEA study we concluded that Xinjiang is the cheapest region for producing textiles in China. However, China might not be the optimal alternative from a global perspective. Even if utility costs are cheaper in Xinjiang than in the rest of China, this might not be enough in a global perspective. China's domestic demand is increasing rapidly with the growing middle class and other countries in Asia, such as Bangladesh, India and Indonesia are taking over as low-cost production countries. Still, the global sourcing strategy trend is no longer depending strictly on price and is instead going towards a larger focus on factors such as quality, reliability and technology. To chase the next emerging country for textile production is not durable in the long run and the new production countries will face difficulties with inflation and rising salaries in the future, similar to the development in China. The textile production will always exist in China and the country is the largest cotton producer and importer in the world. The experience in the textile industry is substantial, going back all the way to the Silk Road initiated around 200 BC and this knowledge is not easy to find elsewhere(UNESCO, 2001).

Even if we declare that the global sourcing trend is going beyond a low-cost focus, we still claim that the cheapest region in China is the most optimal region for producing bleached fabric, which definitely make it seem like we had the low-cost focus. However, Xinjiang is not only a low-cost alternative. Since it is the most important cotton region in China, which is the largest cotton country in the world, there will always be a focus on the cotton and textile industry there. The cotton will always exist there which makes it reasonable to believe that the local government always will give strong incentives to attract and retain textile producers. This will in turn create textile clusters of producers from different parts of the value chain that can exchange knowledge and build strong relations. The textile firms who move to Xinjiang are usually making huge investments in large, automated factories with modern technologies and high productivity. These clusters with strong know-how, modern technologies, beneficial subsidies and closeness to cotton, constitute a long-term competitive advantage for Xinjiang. This type of sustainable advantage is much more difficult to create in a location where the only initial advantage is a low salary level, which we historically have seen can increase very fast. Furthermore, Xinjiang has a strong support from the central government to develop the new Silk Road with a textile focus. The ancient Silk Road is recreated again with the modern network of air, road and rail links, putting Xinjiang on the map as a region connecting China and Europe.

The deepened knowledge about a location contributes to scholarly knowledge. The thesis has illuminated China as a sourcing country and above all the differences of the regions within the country. In research reports, information about China is often given as an average of the whole country, but in reality there are large differences from East to West. Viewing China as a homogenous country will therefore give misleading results in a sourcing decision. The region Xinjiang has been the focus in this study, which is interesting from a scholarly perspective since there is limited research on the region available for global firms, especially with the particular perspective on Xinjiang as a sourcing region. The study brings to light the advantages and future opportunities with the region, which can be interesting information for multinational firms, both within the textile industry and other industries.

8.2. Contributions to Global Sourcing

The study contributes to the academic world of global sourcing by creating a theoretical framework taking in consideration both qualitative and quantitative factors of different sourcing options. This is a wide-ranging framework that raises several thought-provoking questions. Furthermore the framework is constructed with both an internal and an external view of the strategic decision. The framework is illustrated as a process where it is recommended to work with the framework in an iterative process. The researcher can first get a general understanding of the different sourcing options by going through the entire framework without much attention to details. Since it is an iterative process, the researcher will go through the framework several times and drill down in the areas of interest. This combination of both internal/external and qualitative/quantitative perspectives provides the scholarly knowledge with a comprehensive framework useful for firms in any industry taking a strategic location decision.

In the location analysis a multi-periodic perspective was added to the multi-level and multi-criteria perspective, which highlighted the importance of future development of the sourcing options. This is an important part since companies are acting in a dynamic environment and global firms need to think long term to develop competitive strategies. In this thesis the forecasting was based on two methods. Certain quantitative factors were estimated to develop as before and were therefore extrapolated into the future. Other factors were more uncertain and complex and therefore the authors assumed different, rather extreme, future scenarios in order to be able to analyse what the different outcomes would be if these scenarios occurred. For the scenarios with the most impact on our conclusions, we calculated the likelihood of occurrence and thus we provided IKEA with a rigorous and solid analysis of the future. This scenario analysis is a strong contribution to research in the field of global sourcing. It is difficult, if not impossible, to predict the future of different sourcing options including complexities such as currency and transportation volatility. However, by preparing the decision-makers of what different futures will bring, they can take steps to prepare the organisation for what may come and plan different future sourcing strategies. It is desirable that experts continue this research of scenario analysis. There is already academic knowledge regarding the fact that firms need to consider scenario analysis to be able to operate in an increasingly globalised and volatile world. However, there are few concrete, developed tools for scenario analysis that can be applied in this type of study and we urge other with deeper expertise to continue this research.

An analysis was conducted on raw material sourcing in the textile industry, with a rather narrow focus on sourcing medium high-quality cotton from India and China. Raw material sourcing is a big challenge for textile companies and more research in the field of how to strategically handle raw material volatility would be very interesting. IKEA has tried to speculate and trade large volumes of cotton before, which was very not successful in the long run and the company is now hesitant to start this business again. However, the raw material price has the largest influence on the fabric price and this is where retailers should be able to make

the largest cost reductions. Other companies with large volumes, such as Li & Fung, have showed that controlling the sourcing of raw material can be a very successful strategy.

By comparing companies such as IKEA, Li & Fung, Esquel and Carrefour Group, we realise that there is no optimal sourcing strategy. Completely different strategies can be successful, as long as the company has a consistent strategy that is aligned with the customers' demands and the performance objectives. What can be concluded is that firms in mature industries need to find new strategic innovations to gain competitive advantage and one important way to do this is by reviewing the value chain. IKEA has many times showed capability of finding new and unique ways of lower costs by reviewing the supply chain and taking advantage of the competences in their large network. This thesis is contributing with insights on how this can be done for the textile business. However, this is only one example based on the strengths and weaknesses of IKEAs sourcing characteristics and further research within the field of how to innovate textile processes and the total textile supply chain is desired.

8.3. Evaluating Innovative Strategies

Innovative projects are often ruled out too early since it is difficult to see the actual financial benefit they will give. By using financial tools such as the net present value to evaluate investment opportunities, this causes managers to underestimate the real returns and benefits of proceeding with innovative investments. (Christensen, 2008) One of the most common mistakes a firm makes when evaluating investments, is to assume that the base case of not investing in the innovation, the do-nothing scenario, is that the present health of the company will persist indefinitely into the future if the investment is not made. (Christensen, 2008) Thus, it is important to try to elaborate on what the outcome will be in the do-nothing scenario and predict how the health of the firm will deteriorate if no investment is done. In this study it is especially important to analyse the do-nothing scenario since the business conditions change quickly when operating in an increasingly expensive China. However, there are threats that are difficult to take into account in the do-nothing scenario. For example, the Chinese government is encouraging textile producers from some of the important coastal regions where IKEA has suppliers today to move to inland regions. These types of changes can quickly erode the present wealth of the company.

When applying financial tools such as the net present value to evaluate an investment it is usually the incremental innovations that sail through, while the seemingly riskier, radical innovations are rejected. This is probably one of the reasons to why it at first sight seemed more beneficial to have a supplier in an inland region such as Hubei (incremental innovation) instead of investing in a partnership with a textile producer in the remote region Xinjiang (radical innovation). IKEA has never done any backward integration before in the textile category and the value chain we propose is quite unique for the textile industry, which makes the investment seem radical and risky. During the project we continuously heard these negative or hesitating arguments from IKEA employees. As we mentioned in the literature, the history of a firm is 'sticky' and IKEA is dependent and relying on what the firm has done in the past. This path dependency makes it difficult for decision-makers to completely redirect the firm's strategy and go for a new strategic innovation, especially if this innovation does not even seem to be financially beneficial.

In the external location analysis we could show that Hubei is not competitive compared to Xinjiang. In fact, it is better to stay on the East coast than moving to Hubei. This was an important insight for the Trading managers at IKEA. However, the cost savings of about 7-9% that Xinjiang could offer are also quite mediocre and may not be substantial enough for IKEA to make an investment in the region. However, it is once again a question of financial tools that are becoming innovation killers. It is important to remark that some potential

cost savings are not included in the financial analysis. What is the potential cost saving of having a close collaboration with the cotton farmer and ginner? What is the risk and cost of increasing lead times? How do you put value on an increased traceability in the value chain and the possibility to have 100% Better cotton products? What is it worth to have control of the costs in the total value chain? What is the value of a sustainable bleaching process? These difficult questions will probably have a large impact on the final results but it is difficult to put value on these aspects and the assumptions would simply be too far off. It is stated that there are additional soft factors such as the ones mentioned above that probably would make the cost savings larger. Unfortunately, the soft factors are easily forgotten and, at the end of the day, the decision-makers are fixated at the estimated financial benefits of 7-9%. Thus, the financial tools undermine the innovative investment.

When multinational companies take decisions they prefer the fact-based decisions in a static world. However, the dynamic, ever-changing world that is reality is seldom easy to predict and therefore it is impossible to take completely fact-based decisions. This is especially the case for more radical innovations where the returns are difficult to predict. Regarding the investment in Xinjiang, this is a process that needs to grow and in a longer perspective the benefits of the investment can be seen. Therefore, IKEAs decision-makers are reluctant to invest in a large textile production when the benefits and risks of doing it are not clear. A first step would instead be for IKEA to be present in Xinjiang in one way or another. For example, establishing a close relationship with a present textile producer there and encourage their current suppliers to source from this player. In fact, IKEA is informing the current suppliers about the benefits of the Xinjiang region to encourage them to move there.

The radical innovation investments in a dynamic, fluctuating environment are difficult to evaluate and are therefore often rejected by decision-makers in large, established companies. It is probably easier for start-ups to invest in these innovations since they have nothing to loose, no sunk costs, no shareholders that demand immediate value and no old competences that needs to be taken into consideration. Hopefully, there will be more methods that evaluate investments with a focus on the future, long-term perspective and thus encourage unique innovations. We bring these issues of evaluating innovative strategies to light in the hope that others with deeper expertise may be inspired to examine and resolve them.

References

Written references

- Abernathy, F., Volpe, A. & Well, D. (2005). *The future of the Apparel and Textile industries: Prospects and Choices for Public and Private Actors*. Harvard Center for Textile and Apparel Research. Boston: Environment and Planning
- Allwood, Julian M., Laursen Søren Ellæk, Maldico de Rodriguez, Cecilia, Bocken, Nancy M.P. (2006) *Well dressed? The present and future sustainability of clothing and textiles in United Kingdom*. Cambridge: University of Cambridge
- Barker, A. (2009) *Hand book of textiles*. Delhi: Abhishek Publications.
- Barnes, M. M. (2009). *Globalization, the changed global dynamics of the clothing and textile value chain and the impact on sub-Saharan Africa*. Vienna: UNIDO
- Bertrand, M. (2010, September 23). *Clothing sector feels pinch of cotton prices*. The global and Mail, p B3
- Bradsher, K. (2008, June) *Investors Seek Asian Options to Costly China*. The New York Times.
- Bryman, A., & Bell, E. (2007). *Business research methods*. Oxford: Oxford University Press.
- Cambra-Fierro, J., & Ruiz-Benítez R. (2011) *Notions for the successful management of the supply chain: learning with Carrefour in Spain and Carrefour in China*. Supply Chain Management: An international Journal , 148-154.
- Christensen, C., Kaufmann, S., & Shih, W. (2008, January). *Innovation Killers - How Financial Tools Destroy Your Capacity to Do New Things*. Harvard Business Review
- Christopher, M. (2011). *Logistics & Supply Chain Management*. Edinburgh: Prentice Hall, Financial Times.
- Cook, S. (2005). *LEARNING NEEDS ANALYSIS: PART 2: Linking Learning Needs Analysis to business needs*. Trading Journal , 50-52,54.
- Dexter, R. (2008, March). *China's Factory Blues*. Bloomberg Businessweek .
- Domney, R. (2007). *Briefing on the Chinese Garment Industry. Labour Behind the Label*. Womens Wear Daily .
- Dyer, J., Sung Cho, D., & Chu, W. (1998). *Strategic Supplier Segmentation: The Next Best Practice in Supply Chain Management*. California Management Review , 57-75.
- Economic Commission of Europe, Economic Commission of Asia. (2008). *Joint Study of Developing Euro-Asia Transport Linkages*. New York, Geneva: United Nations.
- Fang, T., Gunterberg, C., & Larsson, E. (2010). *Sourcing in an Increasingly Expensive China: Four Swedish Cases* (Vol. 97). Journal of Business Ethics.
- Farrell, D., Puron, A., & Remes, J. (2005, February). *Beyond Cheap Labour: Lessons for Developing Economies*. McKinsey Quarterly.
- Gadde, L.-E., Håkansson, H., & Persson, G. (2010). *Supply Network Strategies*. Wiltshire: Wiley
- Gong, W. (2011). *Labor Shifts Bring Change to China's Textile Industry*. Cotton International Magazine , p. 20.

- Grant, R. M. (2005). *Contemporary Strategy Analysis*. Oxford: Blackwell.
- Grant, R. M. (2009) *Contemporary Strategy Analysis – Concepts, Techniques, Applications*. Oxford: Blackwell Publishing
- Grant, R. M. (2010). *Contemporary Strategy Analysis*. Oxford: Blackwell.
- Hamel, G., & Prahalad, C. (1990). *The Core Competence of the Corporation*. Harvard Business Review.
- Hayes, R., Pisano, G., Upton, D., & Wheelwright, S. (2005). *Pursuing the Competitive Edge*. Hoboken: John Wiley & Sons.
- Hook, L., & Meyer, G. (2011 , March). *China to Build Cotton Reserve to Encourage Output*. Financial Times .
- Huntsmann. (2009). Textile Effects, Gentle Power Bleach. Germany.
- IKEA. (2009). Introduction to textile. Textile basics training (p. 52). Älmhult: IKEA of Sweden.
- Jindal, A., & Jindal, R. (2007). *Textile Raw Materials*. Chandigarh: Global Media.
- Kotabe, M., & Murray, J. Y. (2004). *Global sourcing strategy and sustainable competitive advantage*. Industrial Marketing Management , 7-14.
- KPMG Advisory China. (2011). *China's 12th Five-Year Plan: Overview*. China: KPMG International Cooperative.
- Leonard-Barton, D. (1992). *Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development*. Strategic Management Journal , 111-125.
- Leung, C. (2011). *A case study of price control on electricity*. DBS Group Research.
- Lloyd, B. (2008). Textile Prices Impacted By Rising Material Costs. *DNR 38. 28* , n/a.
- Magretta, J. (1998, September-October). *Fast, Global and Entrepreneurial: Supply Chain Management, Hong Kong Style - An Interview with Victor Fung*. Harvard Business Review , pp. 100-114.
- Natalia, V., & Ines, K. (2007). *The importance of innovation in international textile firms*. European Journal of Marketing , 17-36.
- Pan, S., Hudson, D., & Mutuc, M. (2011). *Effects of an Increase in Chinese Government Purchasing Price on the World Cotton Market*. Cotton Economics Research Institute. Texas: Texas Tech University.
- Peleg-Gillai, B. (2006). *Esquel Group: Transforming Into a Vertically Integrated, Service-Oriented, Leading Manufacturer of Quality Cotton Apparel*. Stanford: Stanford University Press.
- Porter, M. (1990). *The Competitive Advantage of the Nations*. pp. 73-93.
- Porter, M. (1996, Nov). *What is Strategy?* Harvard Business Review. pp. 61-78.
- ProQuest. (2009). *Alternative movements in Global Cotton: Reconciling Environmental and Equity Concerns*. Washington DC: Association of American Geographers.
- Responsible Research. *Water in China*. 2010: Responsible Research.
- Rubin, J. (2008). *The New Inflation*. CIBC World Markets.
- Rupp, J. (2008, July). *Economical Air-Jet Weaving*. Textile World.

- Schilling, M. (2010). *Strategic Management of Technological Innovation*. Singapore: McGraw Hill.
- Sirkin, H. L., Zinser, M., & Hohner, D. (2011). *Made in America, again - Why manufacturing will return to the U.S.* Chicago: Boston Consulting Group.
- Slack, N., Chambers, S., & Johnston, R. (2010). *Operation Management*. Harlow: Prentice Hall.
- Solidaridad. (2010). *China Scoping Study 2.0*. Beijing: Solidaridad and Better cotton Initiative.
- Stewart, G. (2001, June). *Put yourself in a strategic position: IE*. *Industrial Engineer*, pp. 30-32
- Teece, D., Pisano, G., & Shuen, A. (1997). *Dynamic Capabilities and Strategic Management*. pp. 509-533.
- The Economist. (2011, 6 9). *Chinese Manufacturers - the end of cheap goods?*. The Economist .
- Uncu, S. (2003). *Customized International Investment Decision: An Exploration into the Textile and Apparel Decision-Making Process*. North Carolina: North Carolina State University.
- UNEP. (2000). *The cotton Sector in China*. Geneve: United Nations Environment Programme.
- UNESCO. (2001). *The Silk Roads - Highways of Culture and Commerce*. Publishing / Berghahn Books.
- UNIDO. (1992). *Output of seminar on Energy Conservation in Textile Industry*. UNIDO and Ministry of International Trade and Industry (MITI) Japan.
- Van Weele, A. (2010). *Purchasing and Supply Chain Management*. Singapore: Cengage Learning.
- Water Resources Group. (2009). *Charting Our Water Future: Economic Frameworks to Support Decision-Making*
- Xinjiang Statistical Yearbook (2010) Beijing: China Statistics Press

Electronic

- Better cotton Initiative (2011, 01 07). *Bettercotton.org* Retrieved 2012, 04 10 from http://www.bettercotton.org/index/7/about_bci.html
- Cotton Counts. (n.d.). *cotton.org*. Retrieved March 19, 2012, from Cotton: from feild to fabric: <http://www.cotton.org/pubs/cottoncounts/fieldtofabric/gin.cfm>
- Datamonitor. (2011, Juli 28). *Datamonitor 360*. Retrieved 04 10, 2012, from 360.datamonitor.com: <http://360.datamonitor.com.proxy.lib.chalmers.se/Product?pid=6878C795-4BCB-4C85-A319-6F33C508FD80>
- EmergingTextiles. (2012). *Textile and Clothing Trade Information*. Retrieved from EmergingTextiles: <http://www.emergingtextiles.com/>
- IKEA. (2011). *ikea.com*. Retrieved 04 10, 2012, from <http://franchisor.ikea.com/showContent.asp?swfId=facts1>
- Swedish Aral Sea Society. (2005). *Swedish Aral Sea Society*. Retrieved 05 2, 2012, from <http://www.aralsjon.nu: http://www.aralsjon.nu/en/index.html>
- Swedwood. (2011). *About Swedwood*. Retrieved May 28, 2012, from Swedwood: <http://www.swedwood.com/about-swedwood/>

Appendix A – Interviews

All interviews conducted by Katarina Lindh and Klara Södergren.

Internal Interviews at IKEA

Champagne, J., HR Manager, IKEA Trading, Shanghai (2012-02-15)

Dai, T., Project Coordinator – Better cotton, IKEA Trading, Shanghai (2011-10-24)

Efverlund, A., Product Developer, IKEA Trading, Shanghai (2011-11-28)

Fu, H., Project Manager - Better cotton, IKEA Trading, Shanghai (2011-09-15)

Guasch, C., Textile Material Expert, IoS, Mail interview, Shanghai (2011-11-24)

Hammar, J., Deputy Trading Area Manager, IKEA Trading, Shanghai (2011-09-09)

Heald, H., Learning Designer Coach, IKEA Trading, Shanghai (2011-11-23)

Jin, K., Project Coordinator – Better cotton, IKEA Trading, Xinjiang (2011-10-19)

Koys, P., Business Developer, IKEA Trading, Shanghai (2011-09-15)

Li, A., Category Analyst, IKEA Trading, Shanghai (2011-09-16)

Lv, D., Ocean Manager Logistics, IKEA Trading, Mail interview Shanghai (2012-01-18)

Lundgren, J., Sourcing Developer, IoS, Shanghai (2011-11-25)

Mahalingam, S., Business Development Manager Textiles, IKEA Trading, Shanghai (2011-09-16)

Olsson, R., Category Analyst Manager, IoS, Älmhult (2012-03-30)

Oztunc, B., Textile Quality Leader, IKEA Trading, Shanghai (2011-09-28)

Peng, S., Textile Technician, IKEA Trading, Shanghai (2011-09-13, 2011-09-14)

Thedvall, S., Product Developer, IKEA Trading, Shanghai (2011-09-21)

Wang, M., Business Developer, IKEA Trading, Shanghai (2011-09-29)

Woolley, C., Category Leader, IoS, Shanghai (2011-11-25) and Älmhult (2012-03-30)

Yao, C., Business Developer, IKEA Trading, Shanghai (2011-09-27)

Yin, S., Deputy Business Development Manager Textiles, IKEA Trading, Shanghai (Multiple meetings from 2011-09-30 to 2012-02-17)

Zheng, J., Deputy Business Development Manager, IKEA Trading, Shanghai (2011-10-04)

External Interviews with Textile Producers, IKEA Suppliers and Foreign Investors

Ajlan & Bros (Spinning), Administrative Manager, Xinjiang (2011-10-24)

Aksu Economic and Technologic Development Zone, General Manager, Xinjiang (2011-10-19)

Carlsberg, General Manager, Xinjiang (2011-10-19)

European Chamber of Commerce, Business Relations Manager, Shanghai (2011-10-04)

Esquel, Xinjiang responsible, Phone interview, Shanghai (2011-10-10)

Excellence, Consultant, Shanghai (2011-10-17)

IKEA textile supplier, General Manager, (2011-10-06)

IKEA textile supplier, General Manager, Shanghai (2012-02-17)

IKEA textile supplier, Purchasing Manager, (2011-10-07)

IKEA textile supplier, General Manager, Shanghai (2012-02-02)

IKEA textile supplier, Business Manager, Shanghai (2012-02-09)

Golden Fields (Cotton farming and ginning), General Manager, Xinjiang (2011-10-22)

Hisun Home Textiles (Weaving), Production Manager, Xinjiang (2011-10-24)

Huafu Aksu (Fibre dyeing and spinning), Deputy General Manager, Xinjiang (2011-10-21)

Huafu Aksu (Ginning), Production Manager, Xinjiang (2011-10-20)

Huafu Shihezi (Fibre dyeing), Production Manager, Xinjiang (2011-10-26)

LuThai (Ginning and spinning), Production Manager, Xinjiang (2011-10-20)

Shihezi Economic and Technologic Development Zone, General Manager, Xinjiang (2011-10-24 and 2011-10-25)

Tianshen Xiongfeng (Weaving, dyeing, printing), Production Manager, Xinjiang (2011-10-25)

Tianshen Xiongfeng (ETP plant), Production Manager, Xinjiang (2011-10-25)

Appendix B – Example of Interview Questionnaire

Questionnaire - Economic & Technologic Development Zone

Financials

What is the textile industrial value output in the zone? (in RMB)

Who are the largest textile players in the zone?

What is the amount of total investments the last five years for:

- State-owned firms?
- Private firms?

What is the amount of foreign investments the last five years?

- Name of enterprises
- Investment amount

What is the five-year price development of:

- Cotton?
- Yarn?

What is the average price of 30s ring spun yarn from a spinner in the zone?

Government Policies

What would be the main benefits for being in this zone?

How do you think this zone is more attractive compared to other zones in China?

How do you think this zone is more attractive compared to other zones in Xinjiang?

What are the strategies for attracting coastal textile players?

What are the specific plans for the textile development regarding:

- No. of factories?
- Types of production processes?
- Investment amounts?
- Output levels?
- Time-plan to complete the wished investments?
- Focus on apparel or home textile?

If the wished scenario succeeds, what will be the new weakness in the value chain?

- How could these weaknesses be solved?
- What is the view of developing the dyeing and printing industry?

What are the subsidies for exporting yarn out of Xinjiang?

What are the subsidies for exporting cloth out of Xinjiang?

What are the tax reductions for textile producers in the zone?

Textile Production and Partnerships

What is the spinning capacity in the zone?

What is the weaving capacity in the zone?

What is the dyeing and printing capacity in the zone?

Are there any producers that are interested in a partnership with a company such as IKEA in a

- Spinning production?
- Weaving production?

What is the availability in Xinjiang of:

- Spare parts?
- Maintenance technicians?
- Chemicals and dyestuff?
- Textile machine manufacturers?

Cotton

What is the percentage of short staple cotton of the total cotton output in the area? (In tons)

In which area in Xinjiang do spinners source the cotton from?

How large percentage of cotton does spinners source outside of Xinjiang?

Water and Electricity Supply

What is the current industrial electricity price?

- What is the forecast for the industrial electricity price next year?

What is the current industrial steaming price?

- What is the forecast for the industrial steaming price next year?

What is the current industrial water price?

- What is the forecast for the industrial water price next year?
- How is the water availability in the zone?
- What are the water policies in the zone?
- Will the policies change in the near future?
- Any restrictions for waste water emissions?

Is there any ETP (water treatment) in the zone?

- How many percent water is recycled?
- What is the capacity of the water treatment plant?
- Is the technology biological, chemical or both?

Labour

What is the availability of labour?

- What is the availability of skilled labour with knowledge in textile technology and maintenance?
- What is the availability of English speaking workers with knowledge in business administration?
- How many students are studying within textile or engineering in Xinjiang?
- How many students have studied English?
- Possibility for private enterprises to recruit these students?
- How many migrant workers are there in the zone?

What is the average monthly wage for a:

- Spinning operator?
- Weaving operator?
- Dyeing / printing technician?

Sustainability

What type, if any, of green energy do you have in the area?

- What are the plans for future green energy?
- Are there any incentives from the government for producers to use green energy?

What type of sustainable, innovative textile productions do you have in the zone today?

- Is there any R&D for less water usage in printing and dyeing processes?
- Are there any incentives from the government to have a sustainable textile production?