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## Strategic Sourcing from Low Cost Countries

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## Preface

This master thesis has been performed as an internship from February until June 2003 at Accenture in Stockholm. Since we have been situated at the Stockholm office, the last semester have given us the possibility to work in a genuine environment, giving us an understanding of the reality that we eventually will meet. During this project, we have had the opportunity to collaborate with professional people, who have contributed to our work in different ways. We would like to thank our tutors/supervisors at Accenture; Per Segerberg, Lars Linder, Martin Sjöberg, and Hampus Hellsvik; for their eminent guidance, wisdom and help throughout the work of the master thesis. Furthermore we would like to thank Freddy Skantze and Jesper Lindén for their crucial assistance in developing and compiling the survey, forming the basis of this project. We would also like to thank all other people at Accenture for their time and effort, as well as all respondents participating in our survey. Finally, we would like to thank our tutors at Lund Institute of Technology and the School of Economics and Management at Lund University, Stig-Arne Mattsson and Carl-Henric Nilsson, for guiding us throughout this project.

Stockholm, March 20<sup>th</sup> 2004

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## Abstract

**Title:** Strategic Sourcing from Low Cost Countries

**Authors:** Henrik Eriksson and Jockum Lerenius

**Tutors:** Lars Linder, Per Segerberg and Martin Sjöberg at Accenture, Stockholm  
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**Problem:** Due to an increasingly competitive environment, a greater pressure from capital markets for shareholder value and reduced earnings growth, companies try to increase efficiency of internal processes and cutting costs, which puts purchasing on the agenda. Organisations need to balance price, quality, lead-time, delivery precision and product development when selecting suppliers and implementing cost saving strategies. Many major manufacturing companies have worked out distinct objectives regarding the share of total procurement spend that shall be sourced from low cost countries in the future.<sup>1</sup> According to West-European mid-range automotive manufacturers, suppliers in East & Central Europe, China, India, and other Asian countries are likely to gain more business.<sup>2</sup> The issue is, if companies have the intention to increase their share of purchases from low cost countries, how come it is not executed to a larger extent? It has turned out to be a demanding task to realize these objectives, since companies encounter problems during the process.<sup>3</sup> Therefore it is a matter to examine these issues in order to realise why the objectives are so hard to achieve in practice.

**Purpose:** The purpose of the thesis is based on the hypothesis: “*many major Swedish manufacturing companies have the ambition to increase the share of purchased items from low cost countries*”. To be able to provide recommendations for companies on how to reach these objectives, the following research questions were defined;

- 1) What type of resources, capabilities and knowledge is needed within the procurement organisation?
- 2) What are the main challenges, key issues and success factors?
- 3) What are the procedures and how time-consuming is the sourcing process?
- 4) Which regions and what type of product categories are manufacturing companies sourcing from low cost countries and why?

**Method:** To examine the research questions a survey was designed and directed towards procurement managers working within the manufacturing industry in Sweden. As the number of industries and respondents are limited, the outcome should not be considered as a representative sample of the total manufacturing industry in Sweden. However, it should provide an indication of how companies within the industries involved, pursue sourcing from low cost countries. The foundation needed for formulating the questionnaire, was gathered through nondirective interviews with consultants and different sources of literature covering the topic. The survey was documented in a standard Word-document and then programmed in the web survey application ConfirmIT, before it was launched on the Internet. Potential respondents were initially contacted via telephone and invited to participate in the survey. 92 procurement professionals agreed and received an e-mail containing an invitation along with an

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<sup>1</sup> Pettersson (2003)

<sup>2</sup> <http://www.automotive-advisors.com/Briefings/SMMT-Survey/smmt-survey.html>, 2003-02-02

<sup>3</sup> [http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta\\_hos\\_oss\examensjobb\examensjobb\\_tradi.xml](http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta_hos_oss\examensjobb\examensjobb_tradi.xml), 2003-01-30

individual link to the survey. A group of Top Performers was identified through an initial analysis of the respondents' procurement performance. The primary objective was to discover respondents for an in-depth interview to clarify certain issues and test hypothesis developed from the gathered material. Further, by comparing the sourcing practices between Top Performers and other companies from the survey, successful practices could be recognized. Five focused individual interviews were conducted via telephone. To minimise misunderstandings, the respondents were sent supporting documents containing charts and the questionnaire in advance. The interviews were also recorded so that quotes could be reproduced correctly.

**Conclusions:** Through our investigation we have identified success factors and critical activities, which can be applied to improve existing best practise methodologies when sourcing from Low Cost Countries. Further, we have concluded that sourcing from low cost countries is a strategy of increasing importance to reduce costs, for manufacturing companies operating in Sweden. The conclusions from the study are divided into two subgroups – **General Factors of Success** and **Critical Activities in the Low Cost Country Procurement Procedure** – presented as general success factors and activities of importance in a generic procurement process.

**Key words:** Strategic Sourcing, Low Cost Countries

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# 1 Introduction

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*The objective of this introductory chapter is to arouse the reader's interest and provide a basic comprehension of the study. This chapter contains the background of the thesis followed by the problem description/discussion, which in its turn leads to a presentation of the purpose for this study. Thereafter, the delimitations and the target audience are accounted for. Finally, a guide to the thesis is presented describing the structure of the report, followed by some reading instructions.*

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## 1.1 Background

After an increasing trend of Mergers & Acquisitions (M&A) within the manufacturing industry during the last decade, the stockholders are expecting a rapid delivery of the promised synergies. Analysts describe the M&A activity in the late nineties in terms of “merger mania” and “fusion frenzy”. Between 1990 and 1998, the worldwide yearly amount of fusions increased from 11 000 to 28 000.<sup>4</sup> During the last decade mergers within the US communications, computer and content industries, which accounted for 40% of all merger activity, rose by almost 900% as measured by the number of transactions and by 7600% in dollar value.<sup>5</sup> Globalisation drives companies to act on a global market and rising costs for R&D activities requires large-scale operations in order to stay competitive. Also in Sweden a trend towards increasing amount of mergers can be observed. During 1999, 837 mergers involved Swedish companies, which accounted for an accumulated value of SEK 250 billion.<sup>6</sup>

Manufacturing companies often pursue mergers and acquisitions with the intention to increase their market share, realize economies of scale/scope or develop a critical mass. Other motives could be to penetrate new markets or to access new competences/technologies and products.<sup>7</sup> Often post-deal integration fails to meet expectations and many firms are now concentrating on attaining the desired synergies. Due to the stagnant economy it is difficult to increase sales. Consequently the main part of the expected synergies can be obtained through increased efficiency of internal processes and cutting costs. Total procurement spend, i.e. the cost of all purchases, equals approximately 50-60% of the revenue for manufacturing companies. This makes procurement one of the most important business areas to focus on when trying to obtain considerable cost reductions.<sup>8</sup>

Faced with an increasingly competitive environment, a greater pressure from capital markets for shareholder value and the yielding possibilities of information and communication technology, many companies are going through a consolidation process. As firms start to recognise the potential benefits from common material requirements they start to implement coordinated corporate purchasing strategies.<sup>9</sup> Consider an imaginary company with US\$ 3 billion in revenue. Materials and sourcing costs equal to 50% of the revenue, Earnings Before Interest and Taxes (EBIT) of US\$ 400 million and assuming a tax-rate of 33%. Ceteris paribus, if the company's materials and sourcing costs can be reduced by 5%, this will provide a US\$ 50 million increase in earnings. Further, assume a Price to Earnings-ratio (P/E-ratio) of 20:1, the cost reduction will transform into an increase in shareholder value of US\$ 1 billion.<sup>10</sup> Most mega-mergers have based their case on the projected savings resulting from collective buying. By co-ordinating purchasing across business units and geographical areas, costs can be reduced considerably.<sup>11</sup> As an example the procurement savings are expected to account for 34%

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<sup>4</sup> Lundquist (1999)

<sup>5</sup> [http://www.adventis.com/views/pdfs/ma\\_flashpoint\\_final.pdf](http://www.adventis.com/views/pdfs/ma_flashpoint_final.pdf), 2003-04-23

<sup>6</sup> <http://www.ep.liu.se/exjobb/eki/2002/iep/017/exjobb.pdf>, 2003-04-23

<sup>7</sup> <http://www.ep.liu.se/exjobb/eki/2002/iep/017/exjobb.pdf>, 2003-04-23

<sup>8</sup> Accenture (2002), p 25

<sup>9</sup> Rozemeijer, van Weele & Weggeman (2003)

<sup>10</sup> Brooks & Favre (2002), p 5

<sup>11</sup> [http://www.accenture.com/xd/xd.asp?it=syweb&xd=locations\sweden\arbete\\_hos\\_oss\examensjobb\examensjobb\\_trad\\_i.xml](http://www.accenture.com/xd/xd.asp?it=syweb&xd=locations\sweden\arbete_hos_oss\examensjobb\examensjobb_trad_i.xml), 2003-01-30

of the US\$ 2.5 billion in synergies that Hewlett Packard-Compaq claim to realize by the second quarter of 2004.<sup>12</sup>

Despite the strong link between procurement performance and company profitability, most companies have not yet elevated the procurement function to its proper level in the organisation. It is important that companies change perspective from regarding procurement merely as an operational function and recognise it as a strategic function with impact on overall profitability.<sup>13</sup>

*“There is a gold mine of savings opportunities in strategic sourcing. For every type and size of company that spends 50 to 70 % of its revenues on external goods and services. Not only does strategic sourcing save you money but also it can improve product quality, encourage product innovation, and speed up your response time to market place demands.”<sup>14</sup>*

Strategic sourcing is a purchasing process that takes a strategic approach to supplier relationships and purchase decisions. The strategic sourcing program includes three components. For the different item categories the costs of goods and services, the inventory and logistics costs and the cost of buying are reduced.<sup>15</sup> This is achieved by standardization of specifications, consolidation of volumes and by reducing the number of suppliers, so that the bargaining power and the opportunities to reach beneficial agreements with suppliers are maximized.<sup>16</sup> Purchasing strategies are aligned with business strategies and the purchasing managers become strategic sourcing managers.<sup>17</sup>

To reduce the cost of goods and services, Western companies are turning towards new markets in the search for lower prices.<sup>18</sup> Today, South-East Asia is recognized as the world’s leading producer of low priced mechanical, electromechanical and electronic components. Asian sourcing has developed into a cost reduction strategy for a number of Western high-tech companies during the last 25 years.<sup>19</sup> There are other examples of low cost regions that attract different industries to obtain a comparative advantage. The West-European automotive industry looks East in the search for new suppliers. One of the factors that may play a dominant role in this decision is that the cost considerations outweigh technological innovation and engineering capabilities by far. The structural costs of labour in non-low cost countries are too high and instead they are seeking new low-cost suppliers in Eastern & Central Europe, Korea, China and India.<sup>20</sup>

## 1.2 Problem Description/Discussion

*“At Autoliv’s recent general meeting of shareholders, the company’s costs and their role in the future earnings trend were in the centre of attention. By moving production to low cost countries, the objective to cut materials spend by more than 2 percent and the labour costs by more than 5 percent, have been achieved. The forthcoming step is to increase standardisation of components along with reducing the supplier base from 2000 to 500 within three to four years.”<sup>21</sup>*

More and more manufacturing companies that are purchasing labour-intensive commodities focus on reducing their costs by searching for new suppliers in low cost countries (LCC).<sup>22</sup> The purchase price is

<sup>12</sup> Accenture (2002), p 4

<sup>13</sup> ibid.

<sup>14</sup> Penson (1996)

<sup>15</sup> ibid.

<sup>16</sup> [http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta\\_hos\\_oss\examensjobb\examensjobb\\_trad\\_i.xml](http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta_hos_oss\examensjobb\examensjobb_trad_i.xml), 2003-01-30

<sup>17</sup> Anonymous (2000)

<sup>18</sup> Lundquist (1999)

<sup>19</sup> Shales (2002)

<sup>20</sup> <http://www.automotive-advisors.com/Briefings/SMMT-Survey/smmt-survey.html>, 2003-02-20

<sup>21</sup> Stockpicker (2003)

<sup>22</sup> Pettersson (2003)

often lower in these countries/regions, since they by definition have a lower structural cost of labour in low cost countries. Provided that the price is lower, the question is whether the actual cost of acquiring an item, i.e. the landed costs (includes supplier price and actual transport costs, e.g. transportation, customs, insurance, interest and storage), decreases when sourcing from low cost countries. It is also a matter to examine how other measures of efficiency such as quality; supplier delivery accuracy and lead-time are affected if the supplier is located in a low cost country.<sup>23</sup> Moreover, it is a question whether it is possible to reduce costs further by arranging for R&D activities in these regions. This, to clarify whether sourcing from low cost countries decreases the total cost of ownership and has a positive impact on the company's overall performance.

Many major manufacturing companies have worked out distinct objectives regarding the share of total procurement spend that shall be sourced from low cost countries in the future.<sup>24</sup> According to West-European mid-range automotive manufacturers, suppliers in East & Central Europe, China, India, and other Asian countries are likely to gain more business.<sup>25</sup> The issue is, if companies have the intention to increase their share of purchases from low cost countries, how come it is not executed to a larger extent? It has turned out to be a demanding task to realize these objectives, since companies encounter several problems and challenges during the process.<sup>26</sup> Different issues arise as companies decide on:

- How to purchase from these regions
- How to search for and manage their suppliers
- How to handle quality and control issues
- How to handle technical issues from the RFQ<sup>27</sup> stage, through product development /qualification and throughout the production cycle
- How to manage trade relations

Therefore, it is a matter to examine these problems in order to realise why the objectives are so hard to achieve in practice. When possible, the issues will be addressed from two perspectives, how matters are today and how it will be in the future.

### 1.3 Purpose

The purpose of the thesis is based on the hypothesis: "*many major Swedish manufacturing companies have the ambition to increase the share of purchased items from low cost countries*". To be able to provide recommendations for companies on how to reach these objectives, it is necessary to identify successful purchasing and supply management practices when sourcing from low cost countries. Therefore it is necessary to examine sourcing procedures, expose challenges and difficulties, identify success factors and clarify what type of resources, capabilities and knowledge that are required within the procurement organisation. Further it is needed to map the nature of these transactions, what type of items do companies buy and from where, what drives low cost country sourcing.

Based on this reasoning the following research questions were defined:

- What type of resources, capabilities and knowledge is needed within the procurement organisation?
- What are the main challenges, key issues and success factors?

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<sup>23</sup>[http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta\\_hos\\_oss\examensjobb\examensjobb\\_trad\\_i.xml](http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta_hos_oss\examensjobb\examensjobb_trad_i.xml), 2003-01-30

<sup>24</sup> Pettersson (2003)

<sup>25</sup> <http://www.automotive-advisors.com/Briefings/SMMT-Survey/smmt-survey.html>, 2003-02-02

<sup>26</sup>[http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta\\_hos\\_oss\examensjobb\examensjobb\\_trad\\_i.xml](http://www.accenture.com/xd/xd.asp?it=svweb&xd=locations\sweden\arbeta_hos_oss\examensjobb\examensjobb_trad_i.xml), 2003-01-30

<sup>27</sup> RFQ=Request For Quotation

- What are the procedures and how time-consuming is the sourcing process?
- Which regions and what type of product categories are manufacturing companies sourcing from low cost countries and why?
- ?

## 1.4 Delimitations

The number of existing and available theoretic sources regarding strategic sourcing from low cost countries is limited. As a consequence some of the theoretic models used in this thesis, are not only applicable on sourcing from low cost countries, but on global sourcing as a whole. This means that the thesis, in itself, could be considered as a theoretical basis/reference material for any future work conducted within the area of low cost country sourcing.

This study is limited to comprise manufacturing companies operating in Sweden. The primary focus is on companies within the following business categories: **communication, electronics & high-tech, automotive & industrial equipment, pharmaceuticals & medical technology, chemicals and construction**. In addition to companies operating within these industries, one other company is included as a reference company since it is regarded as particularly successful and experienced regarding low cost country sourcing. Furthermore, this report only concerns purchasing of direct material. It might be revealed that some of the examined business categories are not comparable due to various legal and technical aspects. As a consequence, the result of this thesis may only be applicable on some of the examined industries.

## 1.5 Target Audience

There are three main target audiences for this thesis. The first is people, on a managerial level and/or employees within the procurement organisation at companies that source or have the ambition to source from low cost countries. The second target group is students at Lund Institute of Technology, Lund School of Economics and Management and other universities that have an interest in strategic sourcing and sourcing from low cost countries. The third target audience is people working at Accenture, especially those who have had a tutoring part in this master thesis.

## 1.6 Outlay of the Report/Guide to the Thesis

The thesis consists of seven major parts, which are outlined as follows. These parts do not necessarily reflect the chronological order of performance, but it provides the reader with an outline of the overall practical realization of the work.

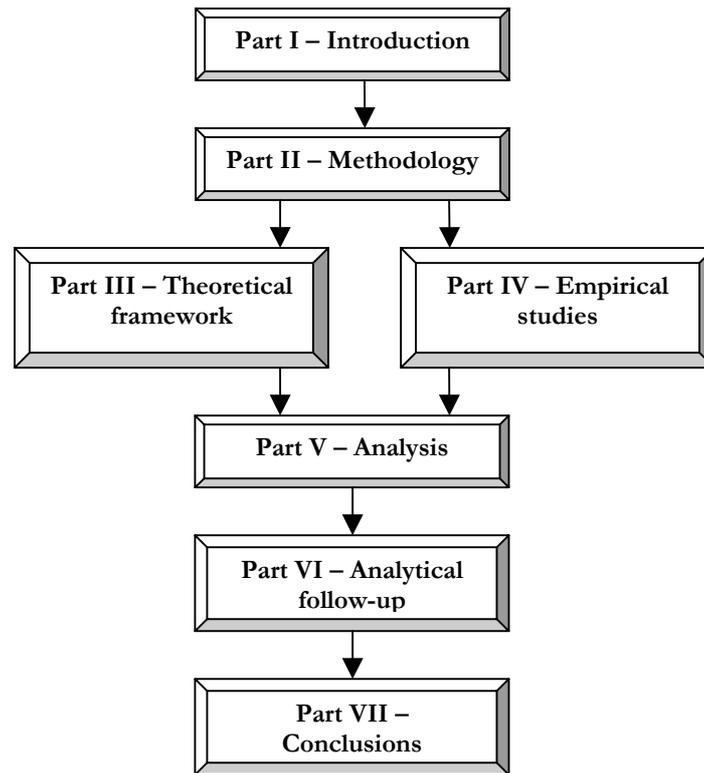


Figure 1.1 – Guide to the thesis

Part one contains the introduction of the thesis; including background, problem discussion and formulation, purpose as well as delimitations and target audience. The second part is a description of the methodology. This chapter describes the scientific frame of reference, the problems that have arisen and the approach used when conducting this study. These first two parts set the basis for the report and provides the reader with the essential information to review the quality, reliability and validity of the material, which outline the foundation for the analysis. The third chapter includes the theoretic framework, consisting of procurement theories, supplier relationship theories and other theoretical concepts of relevance. The following chapter contains the empirical studies and is describing the executed survey. These two parts provide the reader with a theoretical and empirical foundation, which will facilitate the comprehension of the following analytical part of the thesis. The last three chapters contain the analysis, the analytical follow-up and the conclusions and recommendations. Here the theories and the empirics are linked together followed by the outcome of the in-depth interviews and the conclusions drawn from the previous facts and information.

## 1.7 Reading Instructions

Through this section the reader is provided with instructions in order to facilitate effective reading of this thesis. Three different alternatives of how to pursue are hereby given. The first option targets the theoretically interested reader, the second targets the practically interested reader and finally the third alternative is intended for the reader who wants to learn only the essence of strategic sourcing from low cost countries.

The theoretically interested reader should start reading the introductory chapter to get a clear general view of the thesis and its purpose, followed by the methodology chapter. The latter will provide a description of how the production of the thesis was carried out. Then, the theoretical part will give the reader a theoretical basis to facilitate the comprehension of the sourcing/purchasing process, supplier relationship and other facts and information of relevance. Finally, the major scientific contribution will be presented in the analytical part and the chapter about conclusions drawn from the executed analysis.

These chapters should therefore be read carefully in order to obtain the authors' reflections and recommendations.

The practically interested reader should also start reading the introductory chapter to get a clear general view of the report and its purpose. After that, the theoretical part can be skimmed or even skipped. On the other hand, the reader is recommended to read the empirical part thoroughly. This is of a more practical nature and the reader will be able to obtain the facts and knowledge gathered in this study. Finally, the conclusion-chapter should be read, where the recommendations and conclusions are presented.

The reader, who wants to learn only the essence of strategic sourcing from low cost countries, should start with the introductory chapter as well, to be familiar with the background of the report. The theoretical and the empirical chapters should be read briefly to get an understanding of the theoretic basis of strategic sourcing. Finally, the analytical part and the conclusions should of course be read, since this will give the reader a foundation to the conclusions drawn, feedback on the strategic sourcing process and recommendations of improvement that should be considered in this type of process in the future.

## **1.8 Accenture – A Presentation of the Employer**

Accenture is one of the world's leading management consulting and technology services company. The company has more than 75000 employees in 47 countries, of which 650 work in Sweden, and collaborates with clients in almost every major industry worldwide. Accenture has extensive experience in 18 industry groups in different key business areas, including customer relationship management, supply chain management, business strategy, technology and outsourcing. The company does business in four different areas: Consulting, Technology, Outsourcing and Alliances. Accenture had net revenue of \$11.6 billion for the fiscal year of 2002.

## 2 Methodology

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*This chapter begins with an introduction to the theoretical frame of methodology and provides the reader with a short description of the most basic methodological terms used in the second part of this chapter. Further, the implemented methodology is presented and explained together with a discussion concerning the survey and the facts, which this thesis has been based on.*

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### 2.1 Introduction

This introduction aims to present the fundamental theoretical framework, which is utilized in this chapter of methodology.

#### 2.1.1 Methodological Approaches

There are primarily two different approaches to methodology, both representing a different way of perceiving reality. The approaches are:

- Positivistic
- Hermeneutic

The founder of positivism was the French sociologist August Comte (1789-1857)<sup>28</sup>. According to positivism we only have two sources of knowledge, the things we can register with our five senses and the conclusions that can be drawn from logic reasoning. It aims to build a more positive i.e. more certain knowledge<sup>29</sup>. The positivistic approach is based upon formal logic and facts from scientific measures. The formal system of logic has thorough definitions and distinguishes between clauses and assumptions.<sup>30</sup> Research is done by deriving a hypothesis, in the form of a mathematical formula, which is empirically tested with scientific methods.<sup>31</sup> Further, all real and scientific knowledge derives from empiric observations and should be as objective as possible. Something that cannot be measured or be subjected to verification should not be considered science. The dominance of positivism as a research methodology is a result from the early legible progress of science. Critics believe that the positivistic researcher is striving to see things from the perspective of a spectator and is therefore only serving already existing knowledge and does not bring up controversial areas in order to change society.<sup>32</sup>

The other methodological approach is the hermeneutic view, which can be translated as the science of interpretation. This method is often associated with qualitative research as the scientist is approaching his research subjectively from his own understanding.<sup>33</sup> The hermeneutic view was originally evolved as problems of understanding, within theology and the humanistic science, arose when interpreting ancient texts from different epochs. Unlike the positivistic approach the hermeneutic view seeks to find an insight, an understanding of the entirety. A major issue within hermeneutics has been to develop a fairly clean-cut method to conclude what the author of the text really intended. These methods are based upon the fact that a text has been created by a subject – a human being – and that an interpretation therefore has to consist of reconstructions of the originator's purpose at the time of writing. Since not only texts have been created by people the area of utilization has been widened. Documents, social behaviour and norms are other examples that have a human origin. The hermeneutic view implies that a person, for example the researcher, understands another human being's actions and behaviour. Further, the most

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<sup>28</sup> <http://www.epistemelinks.com/Main/Philosophers.aspx?PhilCode=Comt>, 2003-02-14

<sup>29</sup> Eriksson & Wiedersheim-Paul (1997), p 202

<sup>30</sup> Eriksson & Wiedersheim-Paul (1997), p 230

<sup>31</sup> Patel & Davidson (1994), p 23

<sup>32</sup> Eriksson & Wiedersheim-Paul (1997), p 230

<sup>33</sup> Patel & Davidson (1994), p 23

significant technique to obtain comprehension is through language. If there is a lack of a mutual language the correct comprehension will be difficult to obtain. Language and dialogue are therefore crucial when conducting research using the hermeneutic approach. The hermeneutic method is often illustrated by the hermeneutic spiral.<sup>34</sup>

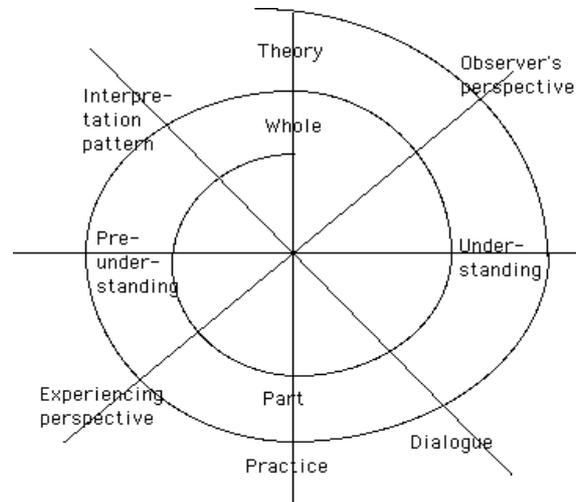


Figure 2.1 – The "hermeneutic spiral"

Source: Inspired by Alvesson & Sköldbberg (1994), p. 174,  
<http://www.dsv.su.se/~evafaabr/lic/lic-2.html>, 2003-02-14

### 2.1.2 Inductive, Deductive & Hypothetic-deductive

*Adham: I've noticed previously that every time I kick a ball up, it comes back down, so I guess this next time when I kick it up, it will come back down, too.*

*Rizik: That's Newton's Law. Everything that goes up must come down. And so, if you kick the ball up, it must come down.*<sup>35</sup>

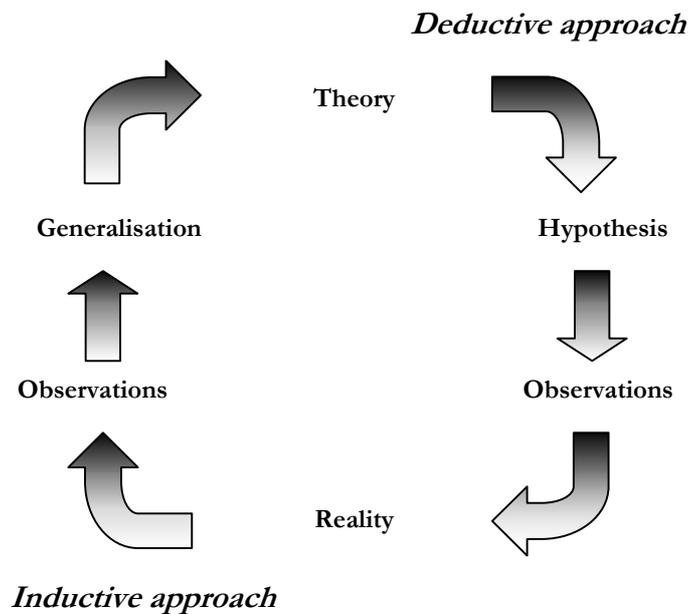
Arguments have traditionally been distinguished into two main categories, i.e. inductive and deductive. Induction is usually described as moving from the specific to the general and the argument is often based on experience or observations. Deduction, on the other hand, is moving from the general towards the specific. Arguments based upon general principals, laws and existing theories are best expressed deductively.<sup>36</sup>

The two approaches in which way the researcher relates to reality can be illustrated as follows:

<sup>34</sup> Eriksson & Wiedersheim-Paul (1997), p 230

<sup>35</sup> <http://www.sjsu.edu/depts/itl/graphics/induc/ind-ded.html>, 2003-02-17

<sup>36</sup> <http://www.sjsu.edu/depts/itl/graphics/induc/ind-ded.html>, 2003-02-17



*Figure 2.2 – Inductive and deductive approach*  
*Source: Inspired by Eriksson & Wiedersheim-Paul (1997), p. 229*

### **Deduction**<sup>37</sup>

A deductive argument is one that forms a hypothesis, which is tested empirically and thereafter conclusions about the validity of the theory can be drawn. It claims that it is impossible for the premises to be true but the conclusion false. Example:

1. All men are mortal. (premise)
2. Socrates was a man. (premise)
3. Socrates was mortal. (conclusion)

If the premises are true, then it is not possible for the conclusion to be false. In this way, if the premises are true, it is supposed to be a definitive proof of the conclusion.

### **Induction**<sup>38</sup>

Induction takes the starting point in reality without theoretical support from established theories. The premises are supposed to support the conclusion in a way that if the premises are true, it is improbable that the conclusion would be false. Since the premises are based on observations, which most likely are biased, the conclusion probably follows from the premises. The observations and investigations eventually lead to the formulation of theory.

Since it is possible to arrive at an incorrect conclusion it may seem that the inductive argument is weaker than the deductive. But you also have to consider that with the deductive approach the conclusions are already contained within the premises. This means that you cannot arrive at new information and develop a new theory with a deductive argument. Thus deductive arguments are often used within mathematics, while most other fields of research may use an inductive approach.

<sup>37</sup> [http://atheism.about.com/library/FAQs/skepticism/blfaq\\_logic\\_ded.html](http://atheism.about.com/library/FAQs/skepticism/blfaq_logic_ded.html), 2003-02-17

<sup>38</sup> *ibid.*

### Hypothetic-deductive

In addition to the above-described approaches there is a third way of relating theory to reality, through the hypothetic-deductive approach. This method is a combination of the inductive and deductive approaches<sup>39</sup> and it is the most utilized approach when evolving theories.<sup>40</sup> The hypothetic-deductive technique formulates arguments in the form of hypotheses, consisting of statements with a testable validity. On the basis of these a conclusion concerning the reality is drawn through deductive inference, which is tested empirically. Thus both the empiric and the logic approaches have been engaged. Through such empirical investigations a specific theory then can be verified or discarded.<sup>41</sup>

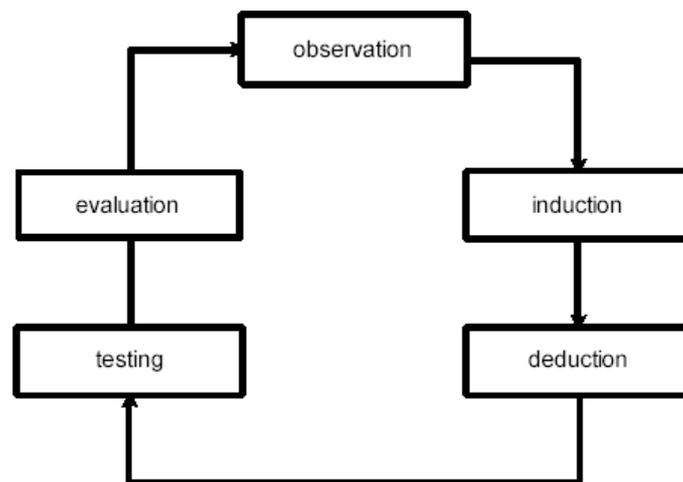


Figure 2.3 – The empirical cycle represents the hypothetical-deductive research approach  
Source: <http://www.uib.rug.nl/eldoc/dis/management/d.m.mietus/c3.pdf>, 2003-02-17

#### 2.1.3 Investigations<sup>42</sup>

When conducting research on a specific phenomenon, it is possible to make an explorative, descriptive or explanatory study. If the problem is hard to limit, it is difficult to distinguish which model is suitable and what abilities and relations that are of importance, an explorative study is appropriate. An investigation where the primary objective is to obtain as much information as possible within a certain area qualifies in this group. Descriptive studies are often applied when the problem is structured and there is no intention to investigate the relation between different causes of behaviours. The purpose might be to investigate whether there exists a correlation between age and a certain disease, and not what kind of virus it is that causes it. Explanatory studies, on the other hand, aims to study the relation between cause and effect. It requires a sufficient amount of knowledge within the area, so that proper hypothesis can be formed and then tested empirically.

#### 2.1.4 Qualitative and Quantitative Research Methods

Within the area of research two different methodologies used for primary data collection exist – the qualitative and the quantitative approach. The choice of method is based on the type of information sought.<sup>43</sup> The primary distinction between these methods is that the quantitative approach is used to transform the collected information to numbers and quantities, which is utilized for some kind of statistical analysis. Unlike this, the qualitative method involves the researcher's attitude and

<sup>39</sup> Eriksson & Wiedersheim-Paul (1997), p 202

<sup>40</sup> Magne Holme & Krohn Solvang (1991), p 51

<sup>41</sup> Eriksson & Wiedersheim-Paul (1997), p 203

<sup>42</sup> Eriksson & Wiedersheim-Paul (1997), p. 218-219

<sup>43</sup> Magne Holme & Krohn Solvang (1991), p 13

interpretation. How the researcher draws his conclusion is of significance, for example motives, social processes and social context. What distinguishes this type of information is that it is rarely transformable into quantitative measures.<sup>44</sup>

Qualitative investigations involve studies that intend to create results and conclusions using qualitative analysis and, primarily, qualitative data. Thus, to get information about facts which are impossible to directly measure or observe. The purposes of this type of research is to find out what is in someone's mind and get a fairly accurate idea about the person's perspective. The qualitative method facilitates the researcher in comprehending the range and complexity of an individual's activity and concern.<sup>45</sup> Examples of qualitative research methods are individual in-depth interviews, focus-group discussions, observations and projective techniques.<sup>46</sup>

Quantitative research methods are more formalized and structured. A higher level of researcher's control characterizes these types of investigations. This approach defines the different kinds of circumstances that are especially interesting regarding the chosen question of issue.<sup>47</sup> A quantitative investigation is primarily based on some kind of measurement.<sup>48</sup> Practically this method aims to describe and trial hypotheses. Examples of quantitative research methods are standardized interviews and questionnaires.<sup>49</sup>

## 2.2 Implemented Methodology

The scientific method used in this master thesis is based on the positivistic approach, since the purpose of this study is to build a more certain degree of knowledge. The research is done by formulating hypotheses, which is verified/falsified through different scientific methods, i.e. a survey investigation and a few in-depth interviews. The aim has been to produce a generally valid and as objective study as possible. We have tried to base this research both from a theoretical point of view and, even more, on reality. The expectations have been to be able to find support within existing theories as well as the reality of the participating companies, and therefore be able to describe it and possibly to influence it. In that way, one can say that the purpose of this research has also been to change something, which the hermeneutic approach implies.

Further, this report is hypothetic-deductive, since it is a combination of both the inductive and deductive approach that is used when evolving theories. Through studying literature we have developed an understanding of strategic sourcing and how to proceed when sourcing on a global basis. In this way, the frame of reference for the examination was created. Despite this course of action, empirical data has been collected relatively unconditionally. The direction of this thesis was thereby formulated both through observations and different theories. We have developed arguments in the form of hypotheses, which have been empirically tested through a survey investigation. Based on these observations new conclusions have been drawn that have been verified or disproved through in-depth interviews. Since we have given both empirical and theoretical studies the same opportunity to affect our practical approach, we consider the criteria for a hypothetic-deductive research to be fulfilled.

The literature discusses three different types of investigations – explorative, descriptive and explanatory. This thesis has utilized all of these three. To start with, the investigation was of an explorative nature, since the problem was hard to limit and the most suitable model was difficult to distinguish as well as the

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<sup>44</sup> Magne Holme & Krohn Solvang (1991), p 85

<sup>45</sup> Aaker, Kumar & Day (1995), p 173

<sup>46</sup> Aaker, Kumar & Day (1995), p 174-192

<sup>47</sup> Magne Holme & Krohn Solvang (1991), p 13

<sup>48</sup> Lundahl & Skärvad (1999), p 154

<sup>49</sup> Lundahl & Skärvad (1999), p 94-95

abilities and relations of importance. The primary objective was to get as much information as possible within the area of strategic sourcing from low cost countries. Secondly, the investigation was descriptive since it aimed at describing the issue at hand, i.e. low cost country sourcing. In addition to this, the investigation also had an explanatory purpose, since one of the purposes was to investigate the relation between cause and effect. In accordance with this, hypotheses were formulated and then tested empirically, both through the survey and the in-depth interviews.

Since the empirical study was based both on a survey investigation as well as in-depth interviews the primary data is both quantitative and qualitative. Quantitative, since the empirical study consisted of a survey investigation. Further, the research approach was formalized and structured because we had a relatively high level of control regarding the questions asked and the areas investigated. The in-depth interviews were more of a qualitative nature, since the respondents were asked to give their opinions regarding hypotheses formulated through the analysis of the collected data. By discussing different problem areas over the telephone the respondents were able to give their opinions about these issues that enabled us to follow-up the questionnaire and penetrate the problem further.

## 2.3 Practical Approach

### 2.3.1 Primary Data Collection

Primary data is collected to address a specific research objective where a wide range of methods ranging from experiments to surveys may be used.<sup>50</sup> First, we intend to give a brief introduction of the methods employed for this thesis.

#### Survey-investigation

A survey-investigation is a non-experimental questionnaire, which is based on the fact that the information sought is standardized. Characteristic for a survey is that a certain phenomenon is measured by “asking questions”. Since all respondents answer exactly the same questions, they are subjects for the same type of stimuli, which leads to sufficient circumstances for performing a quantitative processing and analysis of the collected responses. Market analysis, public opinion polls and medium investigations are all examples of investigations that are often performed as a survey. There are two main types of surveys:

- Descriptive surveys
- Explanatory<sup>51</sup> surveys

The descriptive surveys aim at describing a phenomenon while the explanatory intend to give an explanation.

A survey-investigation is often performed in the following stages:

1. Interpret the client’s mission, specify the investigation’s purpose and define the required information.
2. Is a survey-investigation sufficient to solve the client’s need for information, or does it require a different type of investigation?
3. Choice of method for data collection.
4. Formulation of questionnaire.
5. Determination of population and sample of respondents.

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<sup>50</sup> Aaker, Kumar & Day (1995), p 77

<sup>51</sup> Eriksson & Wiedersheim-Paul (1997), p 218-219

6. Planning and performing the data collection.
7. Compilation, processing and analysis of collected data along with report composition.<sup>52</sup>

The primary data was gathered from several sources through various techniques to address a specific topic within the problem area. In order to get general information and ideas when formulating the problem, nondirective interviews have been performed with consultants working at Accenture. Thereafter, the empirical data was mainly gathered through two methods of data collection; through a web-based survey, followed by focused individual interviews to penetrate the problem further and clarify certain issues. (Please see “Interviews”, p. 18)

The survey was directed towards procurement managers working within the manufacturing industry in Sweden. As the number of industries and respondents are limited, the outcome should not be considered as a representative sample of the total manufacturing industry in Sweden. However, it should provide an indication of how companies within the industries involved, pursue sourcing from low cost countries.

The purpose of the thesis is based on the hypothesis: “*many major Swedish manufacturing companies have the ambition to increase the share of purchases from low cost countries*”, which gave rise to the research questions. To examine these questions, the survey was both explanatory and descriptive. Descriptive on one hand since it is aimed at describing the phenomenon of low cost country-sourcing, explanatory on the other hand as its objective was to explain how companies should proceed sourcing to achieve their goals.

The foundation needed for formulating the questionnaire, was gathered through nondirective interviews with consultants and different sources of literature covering the topic. The survey was documented in a standard Word-document and then programmed in the web survey application (ConfirmIT) before it was launched on the Internet.

Potential respondents were initially identified through a database and screened through two criteria; industry category and annual turnover (>100 million euros). The number of companies matching these criteria summed up to 89. However, some of these had business units with an annual turnover exceeding 100 million euros. Consequently, these companies had more than one potential respondent and therefore the total number ended up at 111. The respondents were initially contacted via telephone and invited to participate in the survey. 92 procurement professionals agreed and received an e-mail containing an invitation along with an individual link to the survey. It turned out that question six was not formulated comprehensibly enough. 14 respondents misinterpreted the question and were followed-up by a new version of the question via the survey application. Ten answers were received and the remaining part was excluded from question 6<sup>53</sup>. The total number of completed answers ended up at 55, i.e. 59.8 percentages of answers and no specific correlation among the shortfall of respondents’ could be identified.

### Identifying Top Performers

A group of Top Performers was identified through an initial analysis of the respondents’ procurement performance. The primary objective was to discover respondents for an in-depth interview to clarify certain issues and test hypothesis developed from the gathered material. Further, by comparing the sourcing practices between Top Performers and other companies from the survey, successful practices can be recognized in a latter part of the thesis.

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<sup>52</sup> Lundahl & Skärvad (1999), p 46-51

<sup>53</sup> See Appendix D

### *Selection Criteria*

What is the definition of a top procurement performer? To get control of the purchasing environment there are eight areas to cover<sup>54</sup>. The respondents were asked to indicate their performance regarding Supplier Delivery Accuracy (SDA) and Quality Conformance (QC)<sup>55</sup> of which the sum is used as the first criterion for Top Performers. The second criterion and perhaps the most evident is the annual Cost Reduction (CR) regarding landed costs on direct procurement spend<sup>56</sup>. Landed Costs is a step towards a total cost approach covering additional costs beyond purchase price for acquiring the item. Armed with these three key procurement indicators, the majority of the eight areas were covered and a solid foundation was formed to build an objective analysis to identify the Top Performers.

### *Additional Selection Criteria*

Purchasing volume and experience were two additional factors of consideration. These factors are referred to as additional selection criteria. Additional experience increases the companies' comprehension as they learn how to conduct successful sourcing from low cost countries. The problem is that companies with longer experience of sourcing from low cost countries do not enjoy the same level of cost reduction since it is measured on an annual basis. It is difficult to keep reducing costs in the same pace, when already dealing with a supplier in low cost countries.<sup>57</sup> Consequently, experienced companies were not favoured by the second selection criteria (i.e. annual cost reduction on landed costs). However, according to different theories, processes, quality and delivery precision can be improved over time by working closely with your suppliers.<sup>58</sup> A Top Performer should therefore be able to keep reducing costs and benefit from the first selection criteria by improving Quality Conformance and Supplier Delivery Accuracy.

The purchasing volume also needed to be considered. Companies with a remarkably low level of direct procurement spend from these areas were excluded from the list of Top Performers. This, since they might have succeeded in just one single case (e.g. an item characterised by low supply market complexity) and do not have sufficient experience in terms of volume to be regarded as a Top Performer. The substance is that by keeping the additional selection criteria in mind, more experienced companies were favoured to capture both experience and superior performance.

### *Limitations*

However, the model has its drawbacks. Respondents that indicated "no basis" were given no points according to the first criterion and are punished for not indicating an answer.<sup>59</sup> Since their performance will remain a well-kept secret, excellent performing companies might have been excluded from the group of Top Performers. Further, since performance is measured in terms of cost reduction it is depending on the performance of the company's previous supplier. E.g. it is harder to achieve a high cost reduction for a company that is sourcing from China today who had its previous supplier located in Poland.

### *Top Performers*

By ranking the respondents independently according to the two criteria (keeping the additional selection criteria in mind), the Top Performers were recognized as the companies with the best total rank. In this manner, the respondents who had attained the highest cost reduction while maintaining or improving quality and delivery accuracy were identified.

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<sup>54</sup> See chapter 3.9

<sup>55</sup> Indicated as subjective measures (1=considerably worse, 2=worse, 3=not any significant difference, 4=better, 5=considerably better) compared to non – low cost country supplier

<sup>56</sup> Indicated as annual cost reduction on landed costs (%)

<sup>57</sup> Additional reasons will be discussed in chapter 5

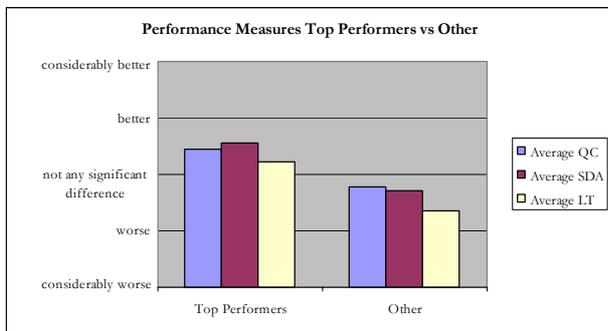
<sup>58</sup> See chapter 3.2.2 & chapter 3.2.5

<sup>59</sup> See figure A.13

QC	SDA	PM Points (QC + SDA)	1 <sup>st</sup> Criteria PM Rank	CR	CR Points	2 <sup>nd</sup> Criteria CR Rank	Sum (PM Rank + CR Rank)	Total Rank
3	2	5	36	2	2	34	70	42
3	3	6	14	7	7	1	15	6

Table 2.1 – Computation of Top Performers (Example)

The objective was to recognise a group of eight to nine respondents as Top Performers, i.e. a subset constituting 14-16% of the total sample. Twelve companies were initially identified; two of these were not sourcing enough items from low cost countries to be considered as sufficiently experienced and were thus excluded from the group. The two lowest ranked of the remaining respondents had achieved the same points from the model. One was excluded since the other was more experienced and is sourcing a considerable amount of its direct material from low cost countries. The Top Performers compose a group of nine companies, i.e. 16.4% of the total sample, with superior performance metrics regarding low cost country sourcing.



	Top performers	Other
Average experience	5,0	4,4
Years equivalent	7,0	5,8
Median experience	5,0	5,0
Years equivalent	7,0	7,0
Average cost reduction (excluding not answered)	5,6	3,4
Percentage equivalent	21%	10%
Average share of total direct material spend sourced from LCC	39%	12%

Figure 2.4 – Performance measurements regarding low cost country sourcing (Top Performers vs. other companies)

On average, the Top Performers have achieved a higher cost reduction on their total direct procurement spend the last three years and are targeting a higher annual cost reduction for the coming three years. I.e. the Top Performers seem to be more cost-conscious and have a lower cost ceiling, than other companies.

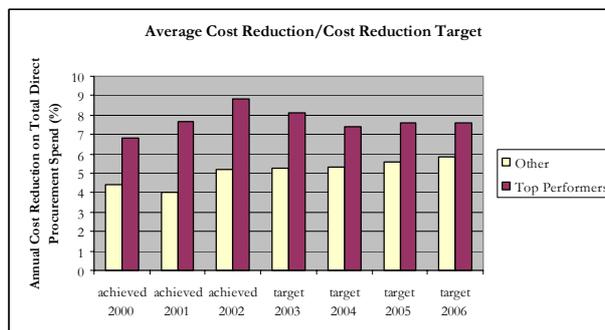


Figure 2.5 – Total cost reduction (Top Performers vs. other companies)

Interviews

There are two basic principles to consider when working with interviews: the level of standardisation and structuring. The level of standardisation refers to what extent the researcher is sticking to the

predetermined order and formulation of questions. The level of structuring refers to what range the respondent is free to interpret the questions considering his or hers previous experience and competence.<sup>60</sup> Depending on how these aspects are combined, different areas of application are obtained.

	<i>High level of structuring</i>	<i>Low level of structuring</i>
<i>High level of standardisation</i>	<ul style="list-style-type: none"> <li>➤ Questionnaire closed response format</li> <li>➤ Interviews where a quantitative analysis of the result is required</li> </ul>	<ul style="list-style-type: none"> <li>➤ Questionnaire or Interview with open-response questions</li> <li>➤ Projective methods ex Rorschach-test</li> </ul>
<i>Low level of standardisation</i>	<ul style="list-style-type: none"> <li>➤ Focused Individual Interviews</li> </ul>	<ul style="list-style-type: none"> <li>➤ Interviews where a qualitative analysis of the result is required</li> <li>➤ Nondirective Interviews</li> </ul>

*Figure 2.6 – Interview techniques*  
Source: Inspired by Patel & Davidson (1994), p. 62

### Individual In-depth Interviews

There are two kind kinds of individual in-depth interviews; nondirective and semi-structured (i.e. focused) interviews. The difference lies in the amount of guidance that the interviewer provides.<sup>61</sup>

A nondirective interview is a problem-oriented interview where both the level of structuring and standardisation is low. This is an initial, informative interview with different people familiar with the problem. Since the respondents have considerable experience within the area, the primary purpose is to get tangible proposals to consider when formulating the problem.<sup>62</sup>

Semi-structured or Focused Individual Interview is an analytical form of in-depth interviews. At this stage the interviewer attempts to cover a specific list of topics or sub-areas, in order to penetrate a certain question even further.<sup>63</sup>

It has to be said though, that comments, tones and body language can influence both the interpretation of questions asked and answers given during an interview. This might lead to inaccurate answers or, in worst-cases, a flawed research if the interviewee decides to withhold critical information that affects the result.<sup>64</sup>

After identifying the Top Performers, new hypothesises were formulated from an initial analysis of the data. These concerned certain sourcing practices, challenges, organisational issues and key success factors when sourcing from low cost countries. Also, certain issues needed further penetration and other required explanation since some questions or answers might have been misinterpreted. To test the new hypothesises, avoid misunderstanding and to get further information, a number of respondents were contacted for an interview. The primary focus was on the top performing companies and the reference company<sup>65</sup>. Five focused individual interviews were conducted via telephone. To minimise misunderstandings, the respondents were sent supporting documents containing charts and the questionnaire in advance. The interviews were also recorded so that quotes can be reproduced correctly.

<sup>60</sup> Patel & Davidson (1994), p 60

<sup>61</sup> Aaker, Kumar & Day (1995), p 176

<sup>62</sup> Svenning (2000), p 119

<sup>63</sup> Svenning (2000), p 120

<sup>64</sup> Magne Holme & Krohn Solvang (1991), p. 105

<sup>65</sup> See chapter 1.4 & chapter 2.3.1

### **2.3.2 Secondary Data Collection**

Secondary data is existing and accessible information, which was originally collected for a purpose other than solving the present problem.<sup>66</sup> The secondary source is dependent on a primary source, since it is based on information obtained from there. It is therefore unfeasible to base any conclusions drawn from a primary source on a secondary source. The latter shall for that reason be seen as a complement to the primary data.<sup>67</sup> Secondary data sourcing is cheaper and easier to access and obtain information than by other means. In addition to this it is also very timesaving. Furthermore, secondary data makes it possible to continuously return to the source of origin and evaluate its significance. Despite the many potential benefits of secondary data it also has a number of limitations. Since secondary data was collected for a different purpose than the current, problems of fit are likely to occur between the data required and the already accessible information. An additional limitation is the risk of subjectivity that characterizes secondary sources. The only way to solve this problem is to use multiple sources when conducting a research.<sup>68</sup>

The theoretic base for this thesis consists mainly of literature, periodical articles, information from the Internet and Accenture's own intranet. This means that the secondary data used is primarily related to the theoretic investigation that has been performed. The libraries of Stockholm University, Stockholm School of Economics and Lund University were used to search for applicable literature. Additional information was collected through databases connected to other universities, companies etc.

The collection of existing theories was carried out in different phases. In the preliminary phase the aim was to get a general comprehension of strategic sourcing. Eventually the theoretic study became more specific as a greater level of knowledge and understanding was evolved.

### **2.3.3 Validity & Reliability**

During a research it is essential to ensure that the measurements and gathering of information is done according to scientific manners. It is critical to know whether the investigation serves the purpose or not, i.e. if we measure what we intended to do and it must also be done in a reliable way.

#### **Validity**

When performing a study, it is important to ensure that the information has a sufficient level of validity, i.e. that the information really is in accordance with the purpose of the investigation. If the research engages human contact, it almost always involves attitudes, experiences, knowledge etc. These are all abstract phenomenon, i.e. they are not tangible in the same figurative sense as for example weight and length.

To get the information sought for, one possibility is to construct an instrument that can measure it. In that case it is essential to ensure that also the instrument measures what it is intended to, i.e. that it has a sufficient validity. There are a couple of different ways to secure the validity of an instrument. One example is the validity of contents, which is possible to obtain through a logical analysis of the content of the instrument. Another example is the contemporary validity and this in turn means to compare the outcome from a specific instrument with a different criterion applicable on the existing circumstances to be measured. This involves testing the instrument on a certain group of people that resemble the original group the instrument aims at. In most cases this is a matter of using a different technique to investigate the same kind of issues.<sup>69</sup>

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<sup>66</sup> Aaker, Kumar & Day (1995), p 77

<sup>67</sup> Magne Holme & Krohn Solvang (1991), p 148

<sup>68</sup> Aaker Kumar & Day (1995), p 115-117

<sup>69</sup> Patel & Davidson (1994), p 85-86

In this master thesis the instrument is composed of both a web-based survey and a few in-depth interviews. The validity has been secured through an extensive preparatory study of literature, a large number of respondents participating in the survey and through follow-up interviews. In the process of selecting applicable literature and responding companies a number of independent sources have been used. Despite this, it is possible that valuable sources of information have been overlooked, due to limited knowledge within certain theoretical areas.

An existing risk is that some of the respondents may have felt the need of describing themselves and their process of sourcing from low cost countries somewhat better than they/it in reality are/is. The opportunity, given to the respondents, to be anonymous is one way of reducing this risk. To utilize a large sample population has been a way of portraying the reality as accurately as possible. However, the number of respondents was not large enough to conduct a statistical significant survey.<sup>70</sup>

### **Reliability**

The authenticity of a research instrument depends on its ability to resist the impact of bias. Since an observation is always affected by noise from its surroundings, it consists of two terms: the true value and a noise term. The size and value of the latter is connected to defects in the reliability of the instrument used for measurement. When conducting interviews or observations the reliability is highly related to the capabilities of the researcher. Both the interviewer and the observer are making subjective judgments when registering the answers and observations.<sup>71</sup> To enhance and control reliability the use of structured observations and standardized interviews are good tools. As we earlier pointed out, in the case of an interview, comments, tones and body language can influence the interpretation of the answers.<sup>72</sup> Recordings and the usage of additional personnel helping out to register the answers, contributes to maximize reliability. When conducting a survey, the ability to control the reliability is limited in advance. It is not possible to judge whether the survey can be considered reliable or not before the result is at hand. However, by thorough instructions, precise formulation of questions and a pilot survey of respondents who are not directly concerned, help to minimize the risk of misinterpretation and control reliability.<sup>73</sup>

To be able to maximise the control of reliability and to avoid misunderstandings, the content of both the survey investigation and the in-depth interviews have been discussed by the authors of this thesis together with supervisors, from both the university and Accenture. Regarding the survey, the reliability has been secured through clear-cut instructions of how to pursue and well put questions. A large amount of time has been spent formulating the questionnaire as explicitly as possible. The survey was put through a trial run on people outside the sample population before launching it. When it comes to the in-depth interviews, they were based on the outcome of the survey, and were therefore more of a follow-up to its character. To secure reliability the interviews were recorded, both of us were present at all the occasions and notes were taken independently which we later discussed to guarantee the accurate comprehension. To get as much as possible out of the in-depth interviews, they were scheduled and booked in advance to avoid disturbance of the interviewee. Supporting documents were sent to the respondent in advance, so that he/she had the opportunity to look at it before the interview. The respondents were people working on a central position within different procurement organisations and therefore hold great knowledge within this area. Further, regarding reliability, all the literature and theories used in this master thesis well reputed.

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<sup>70</sup> See further explanations in chapter 2.5

<sup>71</sup> Patel & Davidson (1994), p 87

<sup>72</sup> Magne Holme & Krohn Solvang (1991), p 105

<sup>73</sup> Patel & Davidson (1994), p 87-88

## 2.4 Selection of Theory

Since the theoretical base concerning low cost country sourcing is limited, the theoretical framework used in this master thesis is mainly built on theories treating international procurement/global sourcing. These theories primarily aim to clarify expressions and the background of a certain phenomenon. Further, has the fact that the empirical study portrays the reality, which seldom is as definite as literary theories, resulted in that the analytical work is more of an empirical character. Where it has been applicable the theoretical framework has endorsed the analysis.

## 2.5 Criticism of the Sources

A weakness in this study is that only 91 companies were invited to conduct this survey, and of these only 55 actually completed the questionnaire. This implies that the analysis is only based on a limited population and the conclusions should therefore not be called best practise. The outcome of the survey is not statistically significant since the difference of certain averages is too small and the number of indicated answers is limited. As a consequence, many of the formulated hypotheses from the initial analysis are based on conclusions drawn from data that cannot be proven statistically.<sup>74</sup> Therefore this investigation should not be interpreted as a statistical significant study but as a pilot study that provides a basis for further research. The limited number of respondents is mainly due to shortage of time and resources. Further, the respondents examined may sometimes have an interest of portraying themselves and the company they are working for to be slightly more successful than what is objectively correct. This, however, is something that is very difficult to avoid, if not even impossible. Although, we hope and strongly believe, that the number of received responses together with the performed in-depth interviews, gives us an objective and truthful picture of the reality as is possible.

## 2.6 Criticism of the Methodology

Certainly there are other ways of reaching the objectives of this master thesis than the selected methodology. However, the methodology described in this chapter was chosen since it leads to the accomplishment of the predetermined purpose.

A different alternative could be to exclusively conduct in-depth interviews with a smaller number of companies. In that way we would have had more control over the responses given, since it gives the researcher an opportunity to follow-up with attendant questions, and would thereby not miss out on important information, which would not be able to foresee. It is very complicated to evaluate if such an approach would be better than the one used. Through the chosen methodology (i.e. a survey and follow-up in-depth interviews), we had the opportunity to gather the opinions of a greater number of respondents and in that way develop hypotheses, which then could be confirmed or rejected. It is all a matter of choice and a balance between quantity and quality in the answers given and the conclusions drawn.

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<sup>74</sup> However, these hypotheses were tested through in-depth interviews with the top performing respondents who confirmed our assumptions.



### 3 Theoretical Framework

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*This chapter primarily aims to present the most common academic theories within the area of this master thesis. As will be noticed, the theoretical framework mainly consists of fundamental background theories. This since the theoretical area of strategic sourcing from low cost countries is limited. The purpose of this chapter is to gather important existing procurement theories and present a framework that is applicable for strategic sourcing from low cost countries. In that way, the reader will be given an increased comprehension of the background to and the remaining part of this master thesis.*

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#### 3.1 Globalisation

Historically, the speed and efficiency of transport has been low and the costs of overcoming the friction of distance high, which was one of the main obstacles to overcome when sourcing globally. However, in terms of the time it takes to get from one part of the world to another the world has “shrunk” dramatically, especially during the last few decades. The most important developments have been the evolution of commercial jets, the development of super freighters and the introduction of containerization, which has considerably simplified the transportation of goods and lowered the cost of international sourcing. Although the world has become smaller in relative terms, this decrease is highly uneven. The technological developments in transport tend to be geographically concentrated. While the world’s leading national economies are being pulled closer together, less developed countries are being left behind.<sup>75</sup>

##### 3.1.1 International Trade

International trade theory analyses how items are produced, consumed and traded in a world where goods can flow unrestrictedly between countries, which each have a unique set of resources. Basic trade models show how the distribution of these production resources (labour, capital, raw materials etc) determines what kind of products/items each country should export and import.<sup>76</sup> The most basic theory of all international trade concepts is the principle of comparative advantage, which was first introduced by Ricardo in 1817. Ricardo stated that a country (or any geographical area) should specialize in producing and exporting those products in which it has a comparative or relative cost advantage compared to other countries. Those goods in which a country has a comparative disadvantage should instead be imported.<sup>77</sup> The Heckscher-Ohlin theory is probably the most well known model of international trade. This illustrates how comparative advantage depends on the relative contribution of two factors of production within countries. Relatively labour rich countries are expected to export labour-intensive products, while capital rich countries will export capital-intensive products.<sup>78</sup>

Historically, international trade theory has had difficulties explaining why countries tend to develop a wide range of competitive and uncompetitive industries. Traditional theories cannot separate out why countries show large differences in the competitiveness in certain industries, though highly developed countries tend to have similar comparative advantages. Furthermore, changes in the way business is done have effected the fundamental grounds on which international trade theory is based.<sup>79</sup>

Recently, economists have examined technological change and its effects on national comparative advantage. Countries tend to specialize in the production of goods that reflect their comparative advantage in particular kinds of innovations. Certain innovative countries therefore become the prime

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<sup>75</sup> Dicken (1999), p 151-154

<sup>76</sup> Sölvell, Zander & Porter (1993), p 16

<sup>77</sup> Dicken (1999), p 73-74

<sup>78</sup> Sölvell, Zander & Porter (1993), p 16-17

<sup>79</sup> Sölvell, Zander & Porter (1993), p 17

sources of foreign trade. Increased opportunities for international companies to locate research and production in foreign countries are other factors requiring modifications of the original theories.<sup>80</sup>

Within the area of international trade it is important to understand the creation of international competitive advantages. This means advantages in all its forms, not only those belonging to the theory of comparative advantage. Quality, product features and new product innovations are central in gaining competitive advantages. Cost of production can be decreased as much, or even more, from efficient product design, and improved process technology as from economies of scale, factor costs and factor quality.<sup>81</sup> Competitive advantages are capabilities that are difficult to replicate or imitate and are non-tradable. Generally two types of capabilities leading to competitive advantages can be distinguished:

- Capabilities leading to an increase in customer value through performance, quality and brand characteristics, leading to a *differentiated* (to provide something unique that is valuable to buyers beyond offering a low price)<sup>82</sup> value proposition.
- Capabilities leading to a lower cost base, such as low-cost labour, low-cost sourcing, economies of scale in production, efficiency, leading to a *cost leadership* (to find and exploit all sources of cost advantage regarding a standard product) value proposition.<sup>83</sup>

According to Porter, the home industrial environment essentially drives the international competitiveness of companies and industries. The home base is where the strategy is formulated and the core product and process technologies are created and maintained.<sup>84</sup>

Four basic and two residual attributes of a country shape the industrial environment faced by local companies that support and hold back the creation of competitive advantage. In most industries, sustained success demands a national environment in which all four basic attributes are present, because the interplay of these yields advantages that are difficult for foreign competitors to replicate or imitate.<sup>85</sup>

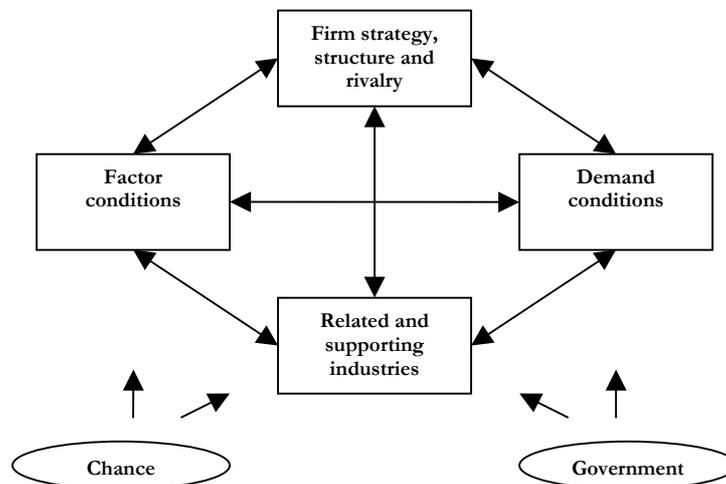


Figure 3.1 – The attributes of competitive advantage (Porter's diamond)  
Source: Sölvell, Zander & Porter (1993), p 24

<sup>80</sup> Sölvell, Zander & Porter (1993), p 18

<sup>81</sup> Sölvell, Zander & Porter (1993), p 20

<sup>82</sup> Grant (1998), p 189

<sup>83</sup> Lasarre (2003), p 45

<sup>84</sup> Sölvell, Zander & Porter (1993), p 20

<sup>85</sup> Sölvell, Zander & Porter (1993), p 24, Schary & Skjøtt-Larsen (2001), p 460-461

### 3.1.2 Global Sourcing

As the progressive lowering of trade barriers facilitates the flow of goods worldwide, business survival increasingly depends on a company's ability to compete globally. Foreign competitors are targeting previously secure domestic markets, while domestic competitors more and more are looking not only for new markets, but also for new sources of supply. The objectives for this are many, but primarily it is to obtain cost reductions, product or service innovation, technological capabilities and risk spreading. To stay in/with the existing markets and suppliers is no longer enough to achieve the growth and profitability a company needs to remain competitive. When developing possible sourcing strategies on a global scale, the company have to consider not only manufacturing costs, the cost of various resources and exchange rate fluctuations, but also availability of infrastructure (such as transportation, communication and industrial and cultural environments etc).<sup>86</sup>

Global sourcing is the coordination of suppliers located across the world and the procurement of goods and services for the global supply chain. This phenomenon can take several forms, depending on the degree of centralisation and integration of the procurement function.<sup>87</sup> In today's global marketplace, sourcing globally is a procedure to aim for.<sup>88</sup> When sourcing globally companies are faced with a number of implicit tradeoffs. Common problems such as cultural and communication barriers, increased lead-time, increased transport costs, employee travel costs, degree of involvement<sup>89</sup> and perceived risks are often encountered in the beginning of sourcing globally.<sup>90</sup> Other problems to consider when sourcing on a global basis are political (e.g. protectionism and trade liberalisation) and social (e.g. human rights, labour practises etc) issues. These may be of particular importance when sourcing from newly industrialised countries.<sup>91</sup>

### 3.1.3 Global Sourcing Strategy

When sourcing globally a company should develop a global sourcing strategy, based on a couple of essential factors. These issues can facilitate to formulate a tailored sourcing strategy unique to the organisation.<sup>92</sup> Primarily, global sourcing requires buyers to have a thorough understanding of the economic and business environment of the foreign markets from which they source/intend to source.<sup>93</sup>

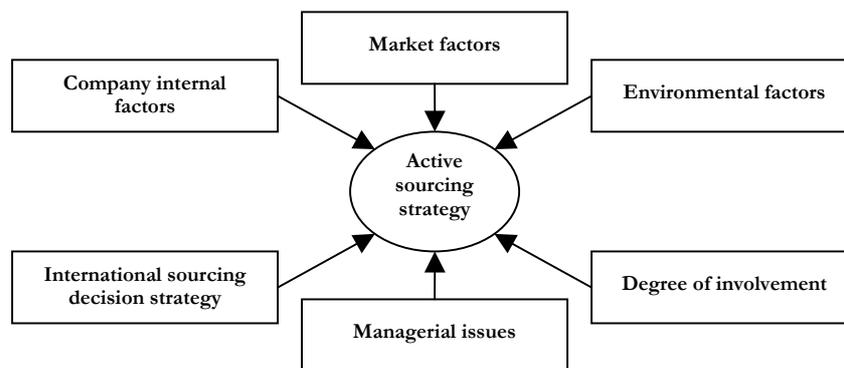


Figure 3.2 – General framework on the development of global sourcing strategy  
Source: Rajagopal & Bernard (1994), p 14

<sup>86</sup> Rajagopal & Bernard (1994)

<sup>87</sup> Lasarre (2003), p 247

<sup>88</sup> Fung (2002)

<sup>89</sup> Rajagopal & Bernard (1994)

<sup>90</sup> Handfield (1994)

<sup>91</sup> Schary & Skjøtt-Larsen (2001), p 363-366

<sup>92</sup> Rajagopal & Bernard (1994)

<sup>93</sup> Fung (2002)

- *Market factors* – supply disruptions, declining domestic supply base, and access to worldwide technology.
- *Environmental factors* – changes in government and international regulations, foreign exchange fluctuations, and general economic conditions.
- *Company internal factors* – top management visions, corporate objectives, global strategy, and human factors, such as the individual manager’s skill, knowledge, and aspiration. Other examples are cost, quality, product development, and delivery requirements.
- *International sourcing decision strategy* – international sourcing entry strategy, the international analysis strategy, the international supplier relationship strategy, and the international withdrawal strategy.
- *Degree of involvement* – identifies the company’s stage in international development and top management commitment and involvement.
- *Managerial resources* – having the right personnel with appropriate skills, backed up by necessary training and development programmes, and having the adequate channels for collection of information to control and co-ordinate worldwide sourcing activities.

For companies to implement a global sourcing strategy successfully, they need to achieve congruency at two levels – the degree of managerial co-ordination and the organisational structure, and collectively the degree to which they facilitate international sourcing.<sup>94</sup>

### **3.1.4 Strategic Objectives for Entering a Country<sup>95</sup>**

Based on an analysis of countries attractiveness the company must consider what it is seeking in a specific country. Four different strategic objectives for why a company should strive for a country presence can be distinguished:

- *Market development* – apply to those countries offering size and growth opportunities. Further, they are key countries in which market-presence is desirable because of size or quality of customer base.
- *Resource access* – to obtain key resources, such as natural or human, which contribute to competitive advantage (i.e. cost leadership or differentiation).
- *Learning* – to gain knowledge and competences in a specific country.
- *Co-ordination* – regional co-ordination of activities because of favourable location and infrastructural advantages.

### **3.1.5 Newly Industrialised Countries**

Although there are almost no countries in the world that do not have at least some manufacturing activity, the majority of production is concentrated to a relatively small number of countries. Four fifths of world manufacturing production is located in North America, Western Europe and Japan, and the vast majority of newly industrialise countries have yet only a small manufacturing base. However, if the current situation is compared with the one of only 40 years ago, a very substantial global shift has occurred.<sup>96</sup>

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<sup>94</sup> Rajagopal & Bernard (1994)

<sup>95</sup> Lasarre (2003), p 187-189

<sup>96</sup> Dicken (1999), p 26-27

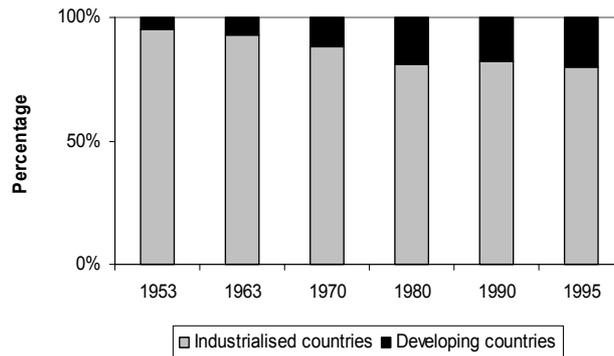


Figure 3.3 – The changing distribution of world manufacturing production, 1953-1995  
(between industrialised and developed countries)  
Source: Dicken (1999), p 27

Newly industrialised countries as a whole have increased their share of world manufacturing output from five percent in 1953 to 20 percent in 1994. However, the developing economies constitute an extremely varied group. Most of the growth in manufacturing production has occurred in what the World Bank terms “the middle-income group” of developing countries. The rates of manufacturing growth were highest in East and South-East Asia and lowest in sub-Saharan Africa. Growth rates in Latin America and in South Asia (both important manufacturing locations in absolute terms) were somewhere between these two extremes. However, the manufacturing growth was much greater in Latin America. In fact, only a relatively small number of newly industrialised countries – the so-called newly industrializing economies – can be regarded as significant centres of manufacturing production on a world scale. Even though the relative importance of each individual country (as a proportion of total world manufacturing output) is small, they have grown extremely rapidly.

It is clear that there has been a considerable increase in growth in the global periphery, in terms of manufacturing production. A small group of newly industrialised countries has begun to make a real impact on the world-manufacturing scene. Although the industrialized countries continue to dominate, manufacturing is not exclusively associated with such regions. In the first quarter of the 20<sup>th</sup> century, 95 percent of world manufacturing production was concentrated to only ten countries. By 1994 approximately 25 countries were responsible for the same proportion of world output.<sup>97</sup>

In the case of production, it is mainly East and South-East Asian countries that dominate the consistently high export rates. In the global reorganisation of manufacturing production and trade the increased importance of East and South-East Asia as an exporter of manufacturers is unique in its magnitude.<sup>98</sup>

Generally speaking, developing Asian markets are characterised not only by a high velocity of growth, but also a high rate of change. The recent foreign exchange instability and economic disorder in nearly all the developing Asian economies has affected multinational companies in their long-term investment and sourcing strategies in the region. Other contingency factors affecting sourcing from developing Asian markets include:

- *Significance of inter-government and business-government relationships.* Newly industrialised countries generally adopt a different economic orientation, which might oppose the legitimacy of corporate behaviour in developed countries.

<sup>97</sup> Dicken (1999), p 29-30

<sup>98</sup> Dicken (1999), p 35-37

- *Strategic importance of total logistical cost in global business.* Tax and non-tax barriers may considerably affect logistical cost and efficient flow of materials/products in and out of the region.
- *Cultural environment of international business.* Attitude and ethical conduct influence transaction cost and behaviour in negotiating, contracting and monitoring suppliers' performance.

Effective sourcing from developing Asian countries seems to be attached to a supplier relationship management framework including structural and cultural factors that rule the total relationship.

A range of international, organisational and strategic tasks for supplier relationship management for supply chain integration may be of great importance when sourcing from developing Asian countries:

- Development of an information system/framework for evaluating the total cost of procurement and ownership of goods/materials.
- Designing an organisational structure to induce committed interactions among internal and external supply chain members for innovations.
- Monitoring the structural and cultural bindings with a balanced portfolio that can strategically minimise risk and maximise availability of suppliers' resource support.

International sourcing is an integral part of the competitive supply chain management system of a company. Sourcing from developing Asian countries will reveal many opportunities, as well as risks and returns. Decision-makers should ensure that thorough strategies are developed and they must be implemented flexibly to respond to unexpected environmental changes that are beyond expectations and control.<sup>99</sup> For most Western companies, buying components or having products assembled in Asia can be risky. Language barriers and miscommunication, errors made in the interpretation of instructions and specifications, misunderstanding of endless variety and cultural differences all lead to the difficulties of establishing and maintaining successful international sourcing. However, for companies able to overcome the obstacles and minimise risks, the potential cost savings from sourcing from newly industrialised countries may be very important and will facilitate companies to compete effectively in today's keen international competition.<sup>100</sup>

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<sup>99</sup> Fung (2002)

<sup>100</sup> Shales (2002)

## 3.2 Procurement

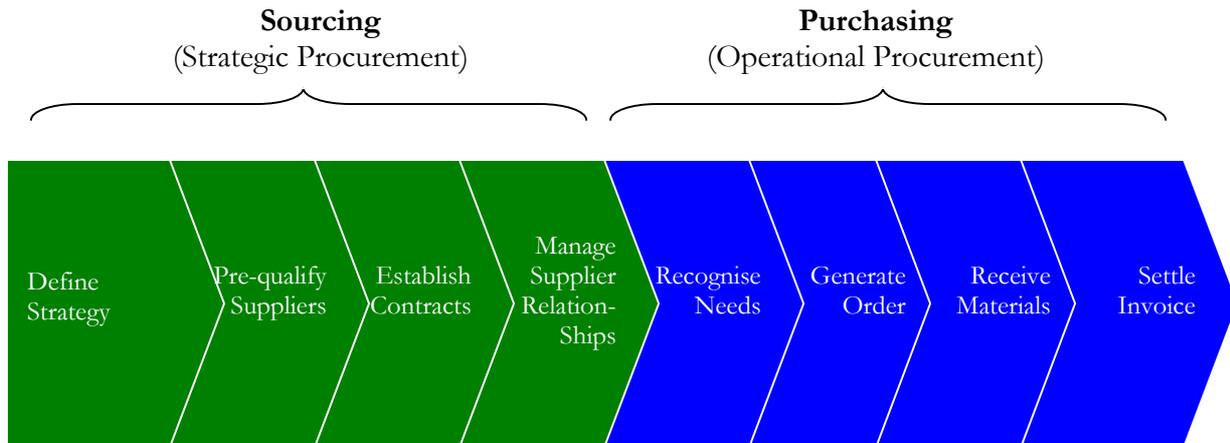


Figure 3.4 – The strategic procurement process  
Source: Brokes & Favre (2001)

### 3.2.1 Procurement, Sourcing & Purchasing

Procurement consists of all activities related with a company's acquisition of products and services. Purchasing provides the operational part, while sourcing constitutes the strategic subset of procurement.<sup>101</sup>

### 3.2.2 Forces Behind the Strategic Importance of Procurement

There are three central procurement issues that create a clean break from the past practice of squeezing suppliers of profit margins for short-term cost reduction:

- make-or-buy decisions
- design of supplier-base structure
- customer-supplier relationship

The first issue deals with the decision whether to buy or rely on in-house production. The more recent emphasis on specialisation of production and development (resulting in increased outsourcing) has increased the importance of this issue.

The supplier-base structure deals with the number of suppliers and how they are organised in relation to one another. The traditional purchasing philosophy deals with suppliers at arm's length through market transactions. Given the high priority of competition among suppliers and the ambition to mitigate supply risk, this philosophy resulted in an increasing number of suppliers as the buyers compared equivalent products by price, quality and delivery options. To reduce co-ordination costs, buyers can decrease the number of suppliers. This involves more co-operative and permanent ties, with focus on establishing more effective materials-supply systems.<sup>102</sup> The other dimension is the organisation of the supplier structure. This subset deals with the various ways to organise suppliers, as networks with tiers, market relation or other forms of organisation.<sup>103</sup>

<sup>101</sup> Brooks & Favre (2001)

<sup>102</sup> Gadde & Håkansson (1993), p 35

<sup>103</sup> Scharj & Skjøtt-Larsen (2001), p 180

The customer-supplier relationship has two strategically important issues: cost rationalisation and the potential benefits from utilising suppliers' competences and resources to develop new skills and innovations. There are two trends that accentuate the difference between market and network relations. The first is e-commerce, which allows rapid comparison of quotations. The second is the development of relationships that have enabled buyers to exploit suppliers' expertise while reducing their involvement in areas where there is no competitive advantage.<sup>104</sup>

In its turn, there are some factors that have influenced the development and contributed to the increase of the strategic importance of procurement.

### **Specialisation & Outsourcing**

During the last decade there has been a strong tendency towards using external suppliers for production and services more frequently. In the automotive and electronic industries 60-80% of the product value has been outsourced to suppliers.<sup>105</sup> The increasing proportion of purchasing is a consequence of increased specialisation. Comparative advantages drive outsourcing of production, services and R&D activities where it can be achieved at the lowest cost. This enables the companies to focus on their core competences in order to stay competitive.<sup>106</sup> Increased outsourcing also changes the role of purchasing. Procurement professionals have to change their function from being reactive to proactive. Activities such as searching for and evaluating suppliers, establishing contracts and developing long-term relationships are vital.<sup>107</sup> The more developed a society become, the greater the degree of differentiation and a higher degree of specialisation can be expected. As a result of the increased portion of purchasing, procurement successively becomes more important, as it becomes involved in a larger fraction of the company's total operations.

### **The Link between Procurement and Profit**

Another reason is the strong link between procurement performance and company profitability. *Ceteris paribus*, every SEK saved on purchasing is a SEK in profit. It is important to point out, that a reduction in purchase price does not necessarily imply an equal increase in profit since there are numerous of indirect costs associated with purchasing.<sup>108</sup>

### **Benefits from Long-term Relationships and Deeper Co-operation with Suppliers**

A third factor that increases the importance of procurement is the benefits resulting from long-term and deeper co-operation with suppliers. Procedures like Just-In-Time purchasing and the development of technology that facilitates communication with suppliers may improve the company's performance. One additional factor that drives the importance of procurement is the potential benefits of joint R&D activities.<sup>109</sup>

### **Increasing Complexity of Purchasing**

Specialisation brings about purchasing of more sophisticated items with a larger technological content which makes purchasing more difficult. Also due to the raise in international purchases, procurement becomes more complex.<sup>110</sup> Traditionally, procurement required good negotiating skills, knowledge of the supplier market and the internal purchasing routines. Today, these skills need to be supplemented by

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<sup>104</sup> *ibid.*

<sup>105</sup> *ibid.*

<sup>106</sup> Gadde & Håkansson (1993), p 5

<sup>107</sup> Schary & Skjøtt-Larsen (2001), p 180

<sup>108</sup> Gadde & Håkansson (1993), p 5

<sup>109</sup> Gadde & Håkansson (1993), p 6

<sup>110</sup> Gadde & Håkansson (1993), p 6

knowledge of international finance, international logistics and international law/regulations, cross-cultural knowledge and language proficiency.<sup>111</sup>

### **Green Supply Management**

One additional factor that drives procurement importance is green supply management. As customers become more aware of the environmental effects of the products they buy, procurement professionals need to consider these issues. Consequently, an increasing number of companies are qualifying for environmental certifications. The procurement department has an important role in this process as they have to consider the origin of the purchased materials, suppliers' production processes, recycling and labour conditions.<sup>112</sup>

### **3.2.3 Strategic Sourcing**

Due to the strong forces driving the importance of procurement, major organisations in all types of industries have turned to this part of their operations to improve profits. For all companies, industries and situations there is an appropriate procurement strategy that fit the business strategy. Just as a business strategy is a well-defined response to its costumers needs, a procurement strategy is a clearly defined response to its business needs or strategy.<sup>113</sup> Sourcing involves the development of a companywide strategy of how to:

- Acquire needed materials and services.
- Identify and evaluate potential suppliers that meet the requirements.
- Negotiate and implement contracts with selected suppliers.
- Supervise and improve current supplier relationships.<sup>114</sup>

Basically, strategic sourcing can be defined as “the gathering of data and performing analyses to understand more about the products, the industries, the conditions, the strengths and weaknesses within the supplier base for a given product category, so that an approach (the strategy) can be developed to both reduce costs and improve supplier performance.” The aim is to maximise the value of suppliers while minimising the Total Cost of Ownership (TCO) of products and services.<sup>115</sup>

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<sup>111</sup> Schary & Skjøtt-Larsen (2001), p 180-181

<sup>112</sup> Schary & Skjøtt-Larsen (2001), p 182

<sup>113</sup> Mehlretter (1996)

<sup>114</sup> Brooks & Favre (2002), p 3

<sup>115</sup> Accenture (2000), p 4

### 3.2.4 The Strategic Sourcing Process

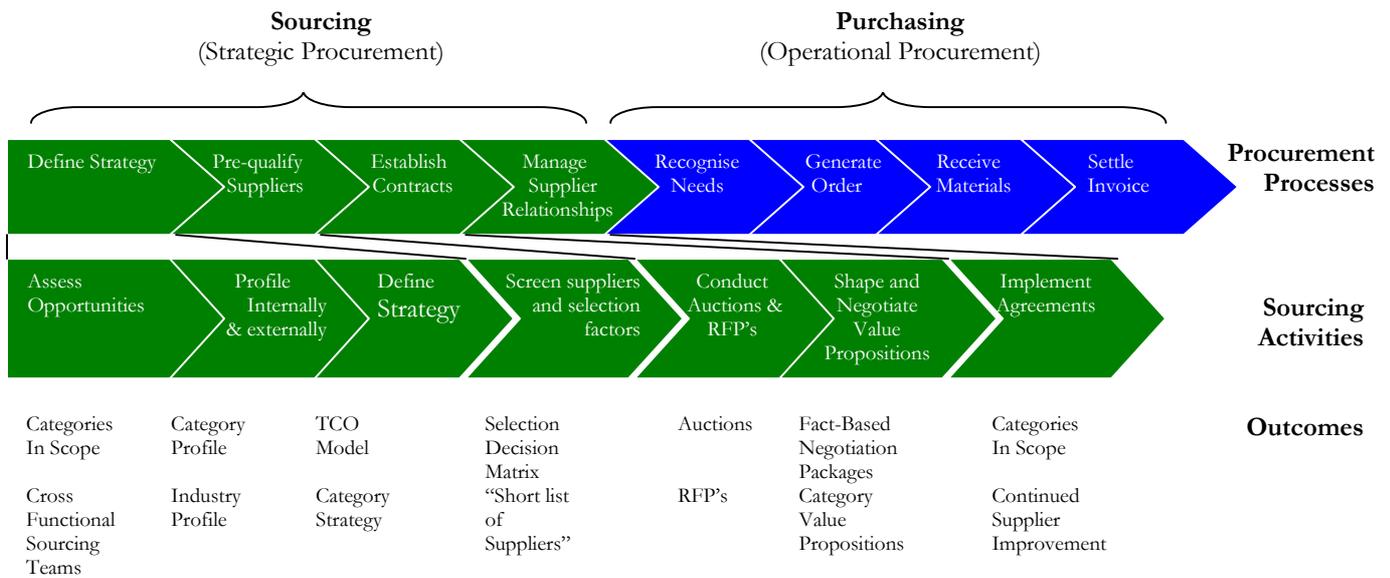


Figure 3.5 – The strategic sourcing process  
 Source: Brokes & Favre (2001)

The precise definition of the strategic sourcing process, where it begins, where it ends and the content of the different steps vary among sources. Strategic sourcing challenges many of the existing ideas about how purchasing “fits in” the organization, how suppliers are selected and engaged, and how decisions are made concerning what to buy and from whom. The purpose of defining a strategic sourcing process is to ensure the highest-value and most objective outcome for the company.<sup>116</sup> Traditionally, sourcing processes have been time-consuming taking an average of three to four months. Complex materials and services are more time-consuming and can often take as long as six months.<sup>117</sup>

#### Define Strategy

##### Assess Opportunities

Strategic Sourcing projects start off by considering the company’s strategic and procurement needs. Various purchases are divided into product categories in order to get a workable number of groups, which drives different strategies. The company’s policies regarding cost reductions, innovation and flexibility forms the criteria for supplier evaluation. Cross-functional teams are established to manage the categories. The make-up of the team may vary depending on the type of item being addressed.<sup>118</sup>

##### Profile Product Categories Internally and Externally

The mission and scope of each category is confirmed by collaborating with different departments such as manufacturing and R&D. Historical spending analysis is performed to capture the company’s procurement practices for each category. Market trends, price, opportunities and potential suppliers’ capabilities are revealed through industry & supplier analysis.<sup>119</sup>

<sup>116</sup> Accenture (2000), p 6-7

<sup>117</sup> Brooks & Favre (2002), p 6

<sup>118</sup> Brooks & Favre (2002), p 8

<sup>119</sup> *ibid.*

### Develop Strategy

During this activity, a Total Cost of Ownership-model based on parameters such as price, quality, service and expected life span is developed for the different categories. By considering the company's strategic priorities, the industry environment and the Total Cost of Ownership-analysis, a desired strategy and contract for each product category is formed.<sup>120</sup>

### **Pre-qualify Suppliers**

#### Screen Suppliers and Selection Factors

Additional information is gathered through RFP's<sup>121</sup> and external data sources. The sourcing team develop supplier information matrixes that support the strategic and procurement goal for each category. The potential suppliers are screened and evaluated based on the relative importance of different selection factors. Finally, a short list of appropriate suppliers is developed containing the pre-qualified suppliers that get to compete for the contract.<sup>122</sup>

### **Establish Contracts**

#### Conduct Auctions and RFP's<sup>123</sup>

Depending on the policies regarding the supplier base structure, the characteristics of the product and supplier industry, the company has several sourcing options. Complex materials usually require thorough and iterative RFP activities involving parallel negotiation or a reverse auction. On the other hand, items with simple specifications may have their prices determined through reverse auctions in real time over the Web.<sup>124</sup>

#### Shape and Negotiate Value Propositions

The company may select one or several winners from the supplier competition. Most contracts require additional negotiation to finalise agreements regarding legal issues and business processes, e.g. catalogue purchases vs. supplier-managed inventory.<sup>125</sup> The implementation schedule and timelines for the selected supplier(s) are prepared. If supplier development activities are required, a plan to diminish performance or capability gaps is developed.<sup>126</sup>

### **Manage Supplier Relationships**

#### Implement Agreements

Phase 7 includes the implementation of agreements and measurement of actual performance. Procurement professionals must be able to measure the performance of suppliers on an ongoing basis. This, to identify and correct problems with products and delivery, to enforce contract compliance and collect information needed for renegotiation when the contract expires. If additional improvement is necessary, buyers can also work with their suppliers and help them perform operational improvements. The goal is to maintain a best-in-class procurement process that is dynamic and flexible enough to meet changing market conditions.<sup>127</sup>

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<sup>120</sup> Brooks & Favre (2002), p 8

<sup>121</sup> RFI=Request For Information

<sup>122</sup> Brooks & Favre, (2002), p 9

<sup>123</sup> RFP=Request For Proposal

<sup>124</sup> ibid.

<sup>125</sup> Brooks & Favre, (2002), p 10

<sup>126</sup> Patterson & Amann, (2000)

<sup>127</sup> Brooks & Favre (2002), p 10

### **3.2.5 The Purchasing Process<sup>128</sup>**

Romney & Steinhart refers purchasing process as the expenditure cycle. “The expenditure cycle is a recurring set of business activities and related data processing operations associated with the purchase of and payment for goods and services.” Its primary purpose is to minimise the total cost of acquiring goods and the services needed for the activities involved in the process.

#### **Ordering Goods, Supplies and Services**

The first major business activity involves both recognising needs and generating orders. Major documents and procedures are the purchase requisition and purchase order. The Economic Order Quantity (EOQ) is a traditional approach based on calculating an optimal order size to minimise ordering, carrying and inventory costs. Alternative inventory control methods are Materials Requirement Planning and JIT. MRP seeks to reduce inventory levels by scheduling production to meet estimated sales needs, creating a stock of finished goods inventory. JIT attempts to minimise both carrying and inventory cost by scheduling production to meet customer demands. Both methods can be facilitated by EDI.

#### **Receiving & Storing Goods, Supplies and Services**

This business activity involves the receipt and storage of ordered materials. The receiving department has to decide whether to accept the delivery and verify quantity and quality of the received materials. Details about each delivery are documented in a receiving report.

#### **Paying for Goods, Supplies and Services**

The final activity entails handling and approving supplier invoices for payments. The accounts payable department authorise payment and approves invoices while the cashier is responsible for making the payment. Invoices can be processed either by a non-voucher or a voucher system. Efficiency can be improved by requiring suppliers to submit invoices electronically by EDI or via the Internet. It is also possible to eliminate invoices through Evaluated Receipt Settlements (ERS). A key decision is to decide whether to take advantage of discounts for rapid payment.

### **3.2.6 Different Approaches to Purchasing<sup>129</sup>**

It is especially important to consider the distances, language and cultural barriers that are involved when sourcing from the Far East. To ensure the lowest possible cost of ownership and the lowest possible exposure to risks, it is essential to identify the best way for a company to approach purchasing from these countries.

Local importers, distributors or agents of Asian producers are primarily exposed to competition from domestic producers. Purchasing through these sellers will invariably reduce the true potential cost savings. On the other hand, most manufacturers in Asia are in competition with many other producers and there is a strong tendency to quote very aggressively for business. To obtain the lowest prices for Asian-made components and assemblies, companies will need to develop the means to purchase directly from the Asian factories. According to James Edward Shales there are four ways to approach purchasing in the Far East<sup>130</sup>.

#### **Purchasing on a Direct Basis from Domestic Purchasing Office**

To obtain lower prices for Asian goods some Western companies purchase directly from the suppliers in Asia. This approach can be executed at two corporate levels: by purchasing on a direct basis from a local

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<sup>128</sup> <http://wps.prenhall.com/wps/media/objects/152/155841/1>, 2003-05-15

<sup>129</sup> Shales (2002)

<sup>130</sup> Which we consider applicable for purchases from all low cost countries.

purchasing office or by consolidating volumes and purchasing on a direct basis from a corporate purchasing office. The approach usually involves extensive trips by teams of purchasing, quality and engineering personnel to visit and evaluate potential suppliers. Eventually when a supplier is chosen, the relation and communication is highly dependent upon telephone, fax, e-mail and other means of communication. Consequently it is impossible to monitor production, perform inspection of the goods prior to shipment, resolve technical and quality issues as they arise and assure that all products are being made according to specifications. Therefore, purchasing on a direct basis from domestic purchasing offices is a high-risk approach since the company do not have the benefit of local support. Shales has accumulated more than 30 years of experience doing business in the Far East. During his career he has encountered hundreds of Western companies searching for suppliers in Asia and is yet to find one single company that has succeeded in doing business in this manner.

### **Purchasing through Local Sales Agents or Domestic Offices of Suppliers**

Purchasing goods through local sales agents or domestic offices is rarely an optimal solution since it reduces the true potential cost savings. Further, purchasing through domestic channels will decrease the ability to control supplier delivery, quality and increases the risk. Additional technical and quality issues can be expected since the company do not communicate directly with the manufacturer. Moreover, the company will never have the opportunity to know what is emerging on the Asian market, which are the best suppliers and what is really happening within the production facilities where they have placed their orders.

### **Purchasing through an Independent Third Party IPO<sup>131</sup> Organisation**

In order to obtain the lowest prices companies need to develop the means to purchase directly from the Asian factories. To minimize increasing risk factors, local presence at all supplier locations is required. Purchasing through an independent third party IPO is a low cost alternative to establish company owned IPO's. Operational expenses are shared among participating companies and the company can benefit from the expertise of purchasing professionals at key supplier markets.

### **Purchasing through a Company-owned IPO or IPO Network**

Another option is to open a company-owned IPO or, even better, a network of them at key supplier locations. The potential advantages of operating a company owned IPO include maximum degree of control and low risk factors. However, establishing an IPO is very expensive, has a long learning curve and is the most complex solution requiring cross-functional staffing with different competences. Learning about language, cultural/labour law issues, government laws/regulations, taxes/foreign exchange laws, qualification/development of the supplier base, technical/quality issues and needs is a very complex problem. To decide in which countries to locate, securing office space and registration, staffing and training is time consuming and implies a long learning curve.

On average a Western company can expect at least a net savings of 20% when purchasing components and assemblies in Asia compared to domestic standard costs. The cost of establishing and operating a capable IPO in Asia is very dependent upon which country the company decides to locate their office in. According to James Edward Shales it will cost at least US\$ 400 000 in annual operating expenses and a second office in another country would cost almost twice that amount. Consequently a large purchasing volume is required for a company to benefit from establishing their own IPO in Asia.

Establishing a single office has several drawbacks compared to establishing a separate office in each country, which needs to be considered when deciding the purchasing approach:

- limited knowledge of sourcing opportunities outside the borders of the IPO location

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<sup>131</sup> IPO=International Purchasing Office

- language and cultural barriers within Asia
- governmental laws and national constraints
- limited control of Asian suppliers located outside the borders of the IPO location

### 3.3 Supplier Relationships

#### 3.3.1 *Creating and Managing the Supply Chain Relationship*

A variety of buyer/supplier relationships have evolved during the last two decades. While purchasing once was limited to mostly passive or adversarial approaches, today an entire range of relationships is available in the acquisition process. Some of these relationships are characterized by integrated supplier concepts used by many companies worldwide. This integration cuts across different functions such as production scheduling, logistics and product modification. True partnerships exist when both companies seek to gain a benefit in the market at the expense of outsiders. Here, a relationship is often created over a long period of time, usually concerning a critical product, technology or service. This may extend to joint ventures as well. The ultimate in close buyer/seller relationships is vertical integration, where the buying and selling firm are either the same or owned by the same company. This type of relationship is not as common as it used to be, because many companies have strived to minimise labour power, assets and investments. Each of these relationships requires a different approach and different skills and relational characteristics. Some of these need someone, whether in purchasing or in another function, to act as a central point in relationships between the buying company and the supplier.<sup>132</sup>

#### 3.3.2 *Dimensions of Cross-national Relationships*

Cultural, communication, conflict and relationship performance has been identified as being important dimensions of creating and managing a cross-national relationship.

- *Cultural sensitivity* – companies must move beyond factual knowledge toward adaptation to the culture of a foreign trading company. Cultural sensitivity is an important requirement for cross-cultural understanding performance. This helps to eliminate tensions between multinational companies and their operations in less developed countries.
- *Communication* – the extent to which the members of the relationship openly share information and expectations. Communication is essential to the effective development and functioning of business relationships and important for the realization of relationship benefits. The role of communication is even more critical in relationships crossing national boundaries because of the increased difficulty of understanding the needs of remote customers.
- *Conflict* – the extent of difficulties experienced in the relationship with the exchange partner. Conflict may be beneficial if constructively resolved. Though, conflict in the absolute sense consumes significant managerial resources and pressures each member of the relationship into satisfying their own short-term performance objectives.
- *Relationship performance* – the extent to which the relationship is perceived to be productive and rewarding. This includes satisfaction, commitment and performance of the relationship.<sup>133</sup>

Another important aspect of cross-national relationships is the geographical distance. A large geographical distance makes relationships with foreign suppliers more difficult.<sup>134</sup> Elements included in

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<sup>132</sup> Robeson & Copacino (1994), p 420-421

<sup>133</sup> LaBahn & Harich (1994)

<sup>134</sup> Frear, Metcalf & Alguire (1992)

this issue are for example amount of travel time, differences in time zones that can add to complexity etc.<sup>135</sup>

### 3.3.3 Relationship Approaches

The relationship approach, unlike the transactional approach, is based on the fact that the customers' choices are not entirely autonomously made, but to some extent originate from a situation of interdependence. Mutual collaboration among concerned parties, instead of conflict and competition, is of great significance within the relationship approach.<sup>136</sup> It is possible to approach the problem of the appropriate relationship level/type by defining a good business relationship. A good business relationship is a relationship customised to fit the business environment and is properly managed in accordance with the factors of a particular relationship level/type.<sup>137</sup>

Three fundamental principles form the basis of a successful buyer-supplier relationship:

- *Strategic* – Does the relationship fit the business priorities and long-term direction of both parties?
- *Joint benefits* – If the relationship is successful, will it substantially benefit both companies?
- *Economics* – Does the relationship lead to economic improvements for both parties?

Given that these three principles are fulfilled and aligned, further development of the buyer/supplier relationship depends on the degree of potential benefits and the required investments. The question then is “What relationship level will best accomplish the companies’ joint objectives?” Relationships levels can be defined as follows:

- *Independent* – Each party acts independently and in its own interest, focusing primarily on the efficiency of the transaction.<sup>138</sup> No or little information is shared and the relation is shallow to its character.<sup>139</sup> Examples here are single transactions and to some extent also repeated transactions.<sup>140</sup>
- *Cooperative* – Both parties informally share information and resources on an ad hoc basis, with a high level of understanding of the effect their businesses have on each other. There are plans or agreements about what is shared.<sup>141</sup> One of the companies (B) changes to fit the other (A). There exists an agreement on continuous interaction and the relation is durable.<sup>142</sup> Examples of this type of relationship are to some extent repeated transactions and long term relationships.<sup>143</sup>
- *Collaborative* – A planned sharing of information and/or resources exists with each party working to benefit the other’s operations or business economics. Both parties often commit resources, but the funds are spent separately by each company for the good of the joint partnership.<sup>144</sup> Both parties change and share the benefits of the collaboration. The boundaries are modified and parts of the business systems are merged.<sup>145</sup> Examples within this area are buyer/supplier partnerships.<sup>146</sup>

<sup>135</sup> Kaufmann & Carter (2000), p 59

<sup>136</sup> Paananen & Strålin (2002), p 28

<sup>137</sup> Seppälä (2001), p 44

<sup>138</sup> [http://www.fmi.org/events/may/2002/handouts/r\\_study1.pdf](http://www.fmi.org/events/may/2002/handouts/r_study1.pdf), 2003-05-15

<sup>139</sup> Paananen & Strålin (2002), p 29

<sup>140</sup> Seppälä (2001), p 46

<sup>141</sup> [http://www.fmi.org/events/may/2002/handouts/r\\_study1.pdf](http://www.fmi.org/events/may/2002/handouts/r_study1.pdf), 2003-05-15

<sup>142</sup> Paananen & Strålin (2002), p 29

<sup>143</sup> Seppälä (2001), p 46

<sup>144</sup> [http://www.fmi.org/events/may/2002/handouts/r\\_study1.pdf](http://www.fmi.org/events/may/2002/handouts/r_study1.pdf), 2003-05-15

<sup>145</sup> Paananen & Strålin (2002), p 29

<sup>146</sup> Seppälä (2001), p 48-50

- *Fully integrated* – The parties are fully integrated in the product development process from start to finish. No boundaries exist between the companies.<sup>147</sup> Examples here are strategic alliances/joint ventures and vertical integration.<sup>148</sup>

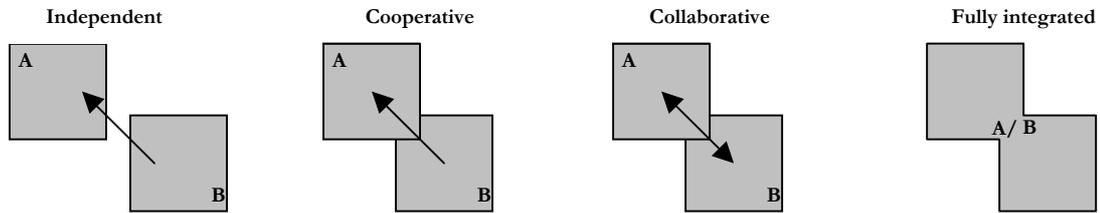


Figure 3.6 – Levels of relationship  
Source: Paananen & Strålin, (2002), p. 29

### 3.3.4 Supplier Evaluation and Selection

Traditionally, the relationship between buyers and suppliers was of a more hostile nature, but in the past few years a positive change has been observed in this aspect. Trends, such as shortened life cycles, increases in technological changes and foreign sourcing, have facilitated the improvement of communication and cooperation between buyers and suppliers.

Supplier selection is in general a long evaluation process and suppliers are evaluated on several criteria such as pricing structure, delivery (suitability, lead time<sup>149</sup> and costs), product quality, reliability<sup>150</sup>, and service (i.e. personnel, facilities, R&D, capability etc). Regularly, these evaluation criteria involve different trade-offs. For example, one supplier may offer inexpensive parts with a quality slightly below average, while another supplier may offer better quality, but with uncertain delivery.<sup>151</sup> While cost, quality and delivery performance have consistently been identified as being the most important determinants of supplier selection, it is also apparent that the importance of each criterion varies from one purchase to another.<sup>152</sup> This is complicated further by the fact that some criteria are quantitative (price, quality etc) and others are qualitative (service, flexibility etc).

Purchased items need to be administrated, transported and handled technically. One example is the cost of inventory resulting from tied up capital and other costs related to storage. Moreover, quality problems or other problems with purchased goods, lead to increased production costs or increased demand for service and customer complaints. I.e. purchased material and services need to be evaluated in relation to the function they are meant to fulfil. Further, the design of the purchased material affects the company's production and development. It is possible to increase the efficiency of the production by purchasing well-made items. Co-operating with suppliers may reduce the amount of required components for the production of the finished product and result in cost reductions in the manufacturing process.<sup>153</sup>

While most buyers consider cost to be the primary evaluation criterion, new more interactive and independent selection criteria are increasingly being used. Total Cost of Ownership is an approach, which looks beyond the price of purchase to include many other purchase-related costs.<sup>154</sup> The supplier

<sup>147</sup> Paananen & Strålin (2002), p 29

<sup>148</sup> Seppälä (2001), p 50

<sup>149</sup> Schorr (1992), p 16

<sup>150</sup> *ibid.*

<sup>151</sup> Bhutta & Huq (2002)

<sup>152</sup> Kannan & Tan (2002)

<sup>153</sup> Gadde & Håkansson (1993), p 5

<sup>154</sup> Bhutta & Huq (2002)

with the lowest price is not necessarily the most attractive when all the additional costs incurred by the purchase transaction in the buyer’s organisation are taken into account. Total Cost of Ownership is a purchasing concept to recognise the true cost of buying a particular good or service from a particular supplier. The approach requires that the buying company determine which costs are most important in the acquisition, possession, use and further disposition of a good or service. Total Cost of Ownership recognises that the purchase price represents only a share of the total cost of acquiring an item. The choice of supplier affects landed cost, life cycle cost, additional in-house cost and cost of lost business.

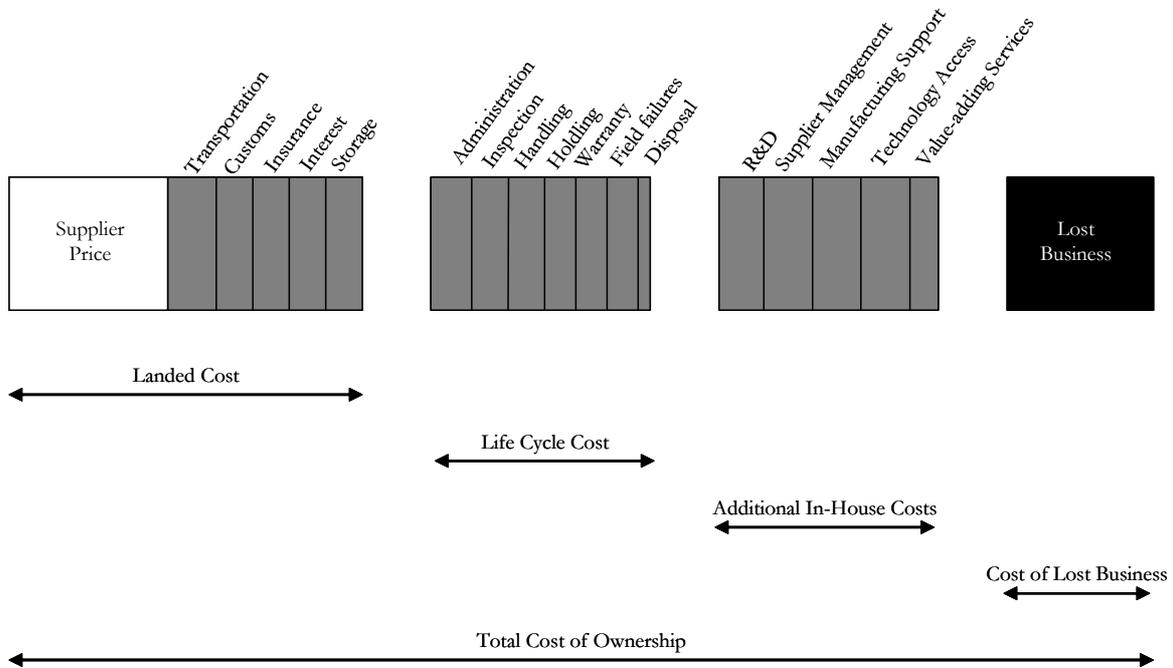


Figure 3.7 – Total Cost of Ownership Structure  
Source: Accenture (2003), p. 1

When selecting suppliers on an international basis, it is also important for the company to include in its selection criteria foreign regulations and standards, such as packaging requirements and government inspections before the goods leave the country, and exchange rate implications.<sup>155</sup>

### 3.3.5 Success Factors of Partnership

There are a number of characteristics associated with successful partnerships. The “Trading Partner Relationship Framework”<sup>156</sup> (TPRF) has identified six enablers, which are referred to as critical success factors. Additional elements have been recognized by Steele & Court<sup>157</sup>, which complement the TPRF-model:

- Openness and Trust - Willingness to share relevant data, plans and insights, and a commitment to treat the partner’s shared information with integrity and confidentiality.
- A Joint Business Plan - A mutually supported plan to manage the partners’ joint business or initiative.
- Knowledge of True Costs and Profits - Understanding by each partner of their true costs and their allocated costs, plus the profits associated with their mutual business.

<sup>155</sup> Motwani, Youssef, Kathawala & Futch (1999)

<sup>156</sup> [http://www.fmi.org/events/may/2002/handouts/r\\_study1.pdf](http://www.fmi.org/events/may/2002/handouts/r_study1.pdf), 2003-05-15

<sup>157</sup> Virolainen (1998), p 104-105

- Integrated Business Processes - Integration of activities between trading partners and an understanding of each of their roles and responsibilities in making business processes work efficiently and effectively.
- The Right Competences and Knowledge - Commitment of resources with the right competences and knowledge (vs. what is available) by both partners to implement the joint plan.
- Aligned with Objectives - Agreement to joint objectives and ensuring that the reward systems of both parties are consistent with their joint objectives.<sup>158</sup>

Additional Steele & Court success factors:

- Genuine commitment of the top management of both organisations to make the partnership work.
- Patience to deal with problems and overcome obstacles.
- Action, as well as words, including the intention to undertake additional tasks beyond the contract.<sup>159</sup>

### 3.4 Kraljic's Matrix – A Portfolio Approach to Supplier Relationship

1983 Peter Kraljic presented a portfolio model to be used as a framework for strategic sourcing. According to this model a company's procurement strategy concerning a purchasing transaction is dependent upon two variables. On one hand, the strategic importance of the purchase concerning profit impact and the importance for operations, on the other hand, the supply market complexity and the difficulty in managing the purchasing process. The general idea of the model is to adapt sourcing strategy to the current relation with the supplier.

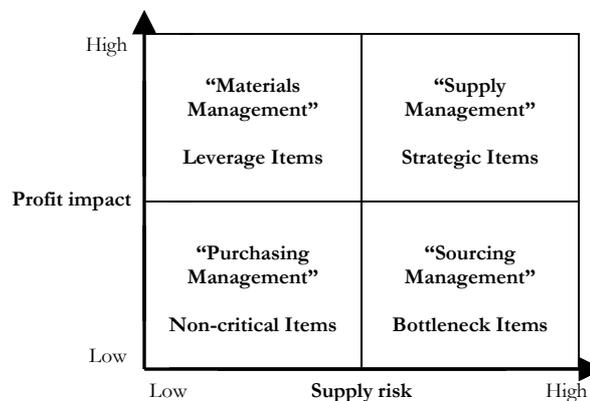


Figure 3.8 – Kraljic's matrix  
Source: Gelderman & van Weele (2003)

The portfolio matrix classifies items in four categories: non-critical, leverage, bottleneck and strategic items. Each category requires a specific approach towards suppliers.<sup>160</sup>

#### Non-critical Items

The first quadrant describes items that have a low supply market complexity and a low strategic importance, i.e. non-critical items. Efficient processing, standardisation, consolidation, order volume and inventory optimisation are effective means when purchasing non-critical items.<sup>161</sup>

<sup>158</sup> [http://www.fmi.org/events/may/2002/handouts/r\\_study1.pdf](http://www.fmi.org/events/may/2002/handouts/r_study1.pdf), 2003-05-15

<sup>159</sup> Virolainen (1998), p 104-105

<sup>160</sup> Gelderman & van Weele (2003)

### Leverage Items

The second quadrant describes items that have a low supply market complexity and a high strategic importance, i.e. leverage items. The potential suppliers should be exposed to competitive bidding and by concentrating purchases to one supplier; discounts, lower administration and transport costs can be achieved.<sup>162</sup>

### Bottleneck Items

The third quadrant describes items that have a high supply market complexity and a low strategic importance, i.e. bottleneck items. Key words are standardization of the purchases, volume insurance, securing inventories, vendor control and search for substituting suppliers.<sup>163</sup>

### Strategic Items

The fourth quadrant describes items that have a high supply market complexity and a high strategic importance, i.e. strategic items. Close and well-integrated relation to suppliers, early supplier involvement in product development and focusing on a long-term relationship with suppliers are important.<sup>164</sup>

#### 3.4.1 Strategic issues in Kraljic's Matrix

Kraljic's model is static and the movements within the matrix, in terms of current positions versus future positions and strategies are not taken into consideration. Gelderman and Van Weele have identified the strategic directions along with some recommendations:

#### Non-critical items

- Holding the position: "individual ordering" – If it is not possible to consolidate the purchasing requirements some type of individual ordering is the only remaining option (e.g. by means of a purchase card).
- Moving to another position: "pooling of requirements" – Non-critical items are put together in large quantities to increase the buying power of the company. The strategic direction is toward the leverage quadrant.

#### Leverage items

- Holding the position: "maintain a partnership of convenience" – A command strategy with competitive bidding and short-term contracts are possible choices to exploit the leverage position.
- Moving to another position: "develop a strategic partnership" – Exceptionally, a cooperative strategy is practised if the supplier is willing and capable of contributing to the competitive advantage of the company. The new role is only feasible for technologically advanced suppliers.

#### Bottleneck items

- Holding the position: "keep safety stocks" – Bottleneck items are by definition low value and of high risk. If no other options are possible, then securing inventories, long term contracting and delivery systems are recommended.
- Moving to another position: "decomplex the product and find a new supplier" – By broadening specifications/decomplex the product or searching for new suppliers, managing and developing suppliers, leads to a lower level of supply risk and dependence on a supplier.

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<sup>161</sup> Schary & Skjøtt-Larsen (2001), p 195, Paananen & Strålin (2002), p 37

<sup>162</sup> *ibid.*

<sup>163</sup> Schary & Skjøtt-Larsen (2001), p 195, Paananen & Strålin (2002), p 37

<sup>164</sup> *ibid.*

### Strategic items

- Holding the position: “maintain a strategic partnership” – Long-term relationships with key suppliers promotes the company’s competitive advantage and can be very valuable for both parties. These relationships are unusual, including mutual trust/commitment and open sharing of information.
- Holding the position: “accept a locked-in partnership” – A company can also be locked in this position as a result of adverse conditions caused by a patent position, high switching costs or by directions of a major customer.
- Moving to another position: “terminate a partnership, find a new supplier” – A supplier’s performance may develop in an undesirable way and become unacceptable. Then the company has to search for, develop and contract a new supplier.<sup>165</sup>

### 3.5 Product Characteristics Related to Supplier Relation<sup>166</sup>

When classifying product characteristics, there are different attributes that can be used. For example, products can be classified according to their complexity or in relation to three key dimensions; frequency of transaction, switching costs and complexity.

The frequency of transaction distinguishes between the purchase of capital goods required infrequently and components and raw material delivered more regularly. When the transactions are more frequent, the relationships are likely to be more interdependent, which means that high frequency of purchasing favour a partnership relation.

Switching costs occur when changing suppliers. This dimension includes the principle of standardisation since standard products usually will have lower switching costs than customised products. The higher the switching costs, the greater the specific investment is which each party has made in the relationship. This also involves a greater tendency for a collaborative strategy. Switching costs can result from both human and physical investments. A buyer pursuing a collaborative strategy is more ready to pay the switching costs in return for joint efforts to find the best solution to a particular problem.

The third dimension is product complexity. Six types of product complexity can be identified. A product has functional complexity when it consists of many parts and subassemblies. The meaning of manufacturing complexity is exactly what it sounds like and specification complexity refers to products that require extensive trial periods. Products have a high application complexity due either to the training required for the buyer to know how to use the product or the uncertainty inherent in the customer’s demand. Commercial complexity refers to transactions involving complicated commercial arrangements. Finally, political complexity concerns purchases for which different groups of people will be for or against. In general, the more complex the product is, the closer the buyer-supplier relationship should be.

### 3.6 Sourcing Policies<sup>167</sup>

Many companies have policies that state that the purchasing department must have more than one supplier for each item. The underlying logic is that by approving more than one supplier, it is possible to mitigate supply risk by diversification and getting lower prices from competitive bids. The idea of competition is good, as a buyer should always strive to get the best supplier. But “the best supplier” does not necessarily mean the supplier with the lowest price. Working closely in a buyer-supplier partnership enables elimination of all waste and thereby develops the lowest cost consistent with quality and delivery

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<sup>165</sup> Gelderman & van Weele (2003)

<sup>166</sup> Virolainen (1998), p 97-98

<sup>167</sup> Schorr (1992), p 97-102

requirements. Further multiple suppliers do not prevent stock outs since it is impossible to educate and train a large number of suppliers to an adequate level.

### **3.6.1 Single Sourcing vs. Multiple Sourcing**

Single sourcing implies that only one supplier is used to produce a part, while multiple sourcing involves utilisation of multiple sources. Schorr mentions seven reasons why single sourcing is more beneficial than multiple sourcing.

- *Consolidation of volumes:* It is possible to achieve lower prices by purchasing the entire volume from one supplier. Further, reducing the supplier base also implies lower overhead, transaction and costs for quality inspections.
- *Difficulties in finding several good suppliers for an item:* A buyer in a supplier-scheduling environment cannot tolerate an insufficient level of supplier performance, concerning quality conformance and delivery accuracy.
- *Difficulties in supplier development:* By reducing the supplier base it is easier to manage supplier development.
- *Synchronising schedules:* Fewer suppliers enable more frequent shipments and the possibility for the buyer to get more flexible at meeting its customers demands without “just-in-case” inventory.
- *Communication:* Communication is facilitated if there is only one supplier for an item since it is easier to find the correct person for a specific matter.
- *Joint approach to problem solving:* The buyer and supplier are able to work more closely together as a team solving problems continuously.
- *Joint R&D activities:* Single sourcing facilitates early supplier involvement in the product development process that can improve quality, cost, delivery, and time to market considerably.

### **3.6.2 Single Sourcing vs. Sole Sourcing**

Single sourcing indicates that several suppliers may be approved to produce a part but only one is used to produce the part. Sole sourcing implies that only one supplier is approved to produce a part and may be the result of a patent position. This could be an adverse condition since the buyer can be locked in an involuntary partnership with a poor supplier.<sup>168</sup>

## **3.7 Cross-cultural Management**

When sourcing on an international basis a company deals with both geographical and cultural distances.<sup>169</sup> This since global companies interacts with different countries as well as customers, employees, partners and suppliers from different national cultures.<sup>170</sup>

When dealing with business partners in different countries there are some cultural issues to consider. It is of great importance to understand the meaning of a culture in a certain country. A party needs to have knowledge about for example how to behave, and existing values, beliefs and preferences when dealing with companies in another country. Further, language skills, understanding of religious and ethnical behaviour and insight in specific procedures may be of great significance. Global companies, as any other firms, are confronted with corporate, industrial and professional cultures, but here the complexity is constituted by national and ethnic differences associated with international purchasing.<sup>171</sup>

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<sup>168</sup> Schorr (1992), p 97-102

<sup>169</sup> Kaufmann & Carter (2000), p 20

<sup>170</sup> Lasarre (2003), p 286

<sup>171</sup> Lasarre (2003), p 286-288

The problem of cross-cultural sourcing can be illustrated by an example. When APL won the bid to manage GM's logistic operations in China they wanted some of the underlying suppliers to do physical transportation of the vehicles. "There were some very qualified suppliers that did not bid and we found it very puzzling." What APL had done was to rely on the highly structured RFP process that involves a lot of writing for the supplier and a formal evaluation of the answers by GM and APL. "When we talked to the people who did not respond, we found out they were not used to doing that type of a formal process. They were uncomfortable with the written work and with the formal presentation, and they also were concerned we would use the process just to drive down the price, without being concerned about service quality or capability".<sup>172</sup>

### 3.8 Globalisation of R&D

To globalise the R&D function means to establish the innovation of new products, services and processes on an international level. This involves a decentralised distributed approach to the management of innovation. There are four main potential benefits of decentralisation as opposed to centrally managed R&D:

- *Proximity to market* – the ability of a global company to adapt or to create products suitable for local customers.
- *Access to geographical clusters of knowledge creation and development* – universities, suppliers, researchers, start-up companies, venture capitalists, and so on.
- *Learning* – the ability of a global company to influence and control local knowledge across subsidiaries and to use this knowledge within a global organisation.
- *Access to low-cost and good-quality scientists and engineers* – to get the adequate knowledge at a lower cost.

There are also two major constraints in implementing a global distributed R&D organisation:

- *Critical mass constraints* – a minimum amount of resources is required for an activity to be performed efficiently (i.e. assistance from others within the organisation, more and more expensive equipment etc).
- *Communication constraints* – due to the fact that innovative activities require face-to-face informal communication. This constraint is partly based on ill-defined, tacit, intuitive intellectual processes, personal encounters and conversations among researchers.

In total, the benefits of a distributed organisation of innovative centres outweigh the costs as more and more global companies develop a decentralisation of R&D organisations.<sup>173</sup>

#### 3.8.1 Supplier Involvement in R&D

Involving suppliers in new product development is a difficult process but sometimes necessary and beneficial. When suppliers have needed technologies, there is often no option. Suppliers can be integrated at any point between idea generation and full-scale production. However, early stages of involvement influence a major share of the product cost.<sup>174</sup> In many industries, manufacturing companies give suppliers increasing responsibilities concerning the design, development and engineering of components. The overall aims are to better leverage suppliers' technological capabilities and expertise and to increase the efficiency and the effectiveness in the product development process.

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<sup>172</sup> Morphy (2000)

<sup>173</sup> Lasarre (2003), p 266-268

<sup>174</sup> Scharj & Skjøtt-Larsen (2001), p 201-202

## The Goals of Supplier Involvement

In terms of efficiency, supplier involvement can lead to the reduction of development costs and the reduction of development lead-time. This is mainly achieved by preventing, reducing or introducing design changes earlier, through early and intensive communication with the supplier. Further, it is also realised by separating development tasks, and developing different components or modules in parallel. This facilitates solving capacity bottlenecks in the manufacturer's engineering department. To delegate design responsibility to the most competent company of the two, the supplier or the buyer, also promotes the efficiency.

Regarding effectiveness, supplier involvement may lead to the reduction of product costs and an increase of product value. This can be achieved by organising and leveraging supplier expertise concerning Design for Manufacturing, the quality and reliability of component designs, alternative materials and possibilities for component standardisation.

Apart from improving (short-term) development of project performance in terms of efficiency and effectiveness, manufacturers may have an interest in collaborating with suppliers in product development to achieve long-term benefits. One common long-term goal involves getting access to the technological knowledge of suppliers.

## The Problems in Managing Supplier Involvement

Not all efforts regarding supplier involvement in product development result in the predicted benefits, since there are several problems that need to be addressed. These problems can generally be connected to one of the following sources:

- *The relation between the buyer and the supplier* – problems such as lack of communication and trust may lead to unclear agreements and varying expectations. Significant problems arise when the buying company fails to communicate to suppliers what it expects from them.
- *The supplier* – the supplier may not be sufficiently capable of product development collaboration, due maybe to lack of knowledge and skills, and technical or innovative capabilities. Further, the supplier may not be able or willing to commit necessary time, labour or capital.
- *The manufacturer* – lack of a clearly defined product development process and strategy. Problems in this aspect may also arise due to resistance at the departments that are most directly involved in and affected by the supplier involvement, such as purchasing and engineering/product development.

## Conditions for Successful Supplier Involvement

There are three issues facing the buying company in achieving effective supplier involvement in the product development process:

- *Identifying specific processes and tasks that need to be carried out, aimed at the integration of product development and sourcing processes* – the first issue, in establishing or improving the involvement of suppliers in developing new products, is identifying the type of managerial activities that need to be organised and performed to support the involvement.
- *Developing an organisation supporting the execution of the various purchasing involvement tasks* – the second condition to be successful in supplier involvement is an internal organisation that supports the execution of the different activities related to integrated product development and sourcing.
- *Staffing the organisation with people that have the right purchasing, engineering and social skills* – Probably the most critical issue is human resources. The people, and the quality of those people performing the product development activities within the organisation, determine to a large extent whether the various purchasing involvement activities are actually being performed. A

number of personal attributes affect people's ability to participate effectively in the development of new products: kind of previous experience, kind and level of training/education, degree of technical expertise, degree of pro-activeness, abilities as perceived by others (credibility), and social skills.

Supplier involvement in product development holds great potential, both in the short and the long run, but not many companies seem to be able to realise these benefits. This is, to a large part, due to common problems such as lack of communication and trust, insufficient supplier abilities and willingness, and internal resistance of the buying company. Involving suppliers in product development can result in major benefits in terms of capital and time. But, it requires a great deal of thinking and effort.<sup>175</sup>

### 3.9 Performance Measurements<sup>176</sup>

Performance measurements provide a possibility to view areas of future improvement for a company. The first step in this area is to establish objective measurements. The buyer and the supplier should together set realistic goals and develop a timetable for reaching them. The objective of performance measurements is to establish which road a company wants to take, where the company currently is on this road and where the company ultimately wants to end up. Companies often need to make some basic changes in the way they reward performance and set goals, which should reflect current realities. Measurements should be seen as a starting point, they help people to learn how to improve performance by establishing achievable goals and timetables to reach desired levels. Measurement reporting illustrates an opportunity to develop a better understanding between the buyer and the supplier of each other's needs. In this way they can be used as a basis for improved performance. If measurements are seen only as a punishment/reward tool in supplier relationships, the results may be the opposite of those desired.

To get control of the purchasing environment, areas that need improvement must first be identified. A good purchasing performance measurement system should cover eight different areas:

- Delivery
- Quality
- Price
- Lead times
- Inventory investment
- Schedule achievements for the company
- Cost reduction/value analysis
- Inbound freight cost reduction

### 3.10 Risks Facing Importers

Dealing with suppliers in foreign countries makes importing of goods and services more complicated. Therefore the importing company should be aware of potential risks and fraud and have knowledge about the strategies that can facilitate protection against them.

- *Exchange (currency) risk* – The local currency amount payable on an agreement might be higher than the amount calculated when entering a contract. This risk arises since exchange rates between currencies can vary over time and there may be a time delay between signing a contract and making the payment. This can be managed through foreign exchange risk management.

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<sup>175</sup> Wynstra, van Weele & Weggemann (2001)

<sup>176</sup> Schorr (1992), p 132

- *Risk of non-delivery or non-performance* – The supplier will not perform according to the contract (e.g. deliver the wrong or inferior goods, or not deliver on time). This risk arises when a supplier may not be willing or able to perform as agreed upon. To protect themselves the company should seek trade references before dealing with any new business partners or have a secondary source of goods available to limit the effect of non-performance by a supplier.
- *Credit risk* – When a payment has been made before a shipment and the supplier lacks the financial ability to complete the shipment. Occurs when the supplier or other parties in the payment chain, such as banks, becomes insolvent. A credit risk can be mitigated through not entering contracts or making advance payments unless it is confident that the supplier is willing or able to deliver.
- *Transfer risk* – A change in government regulations may prevent or restrict the ability to make payments or exchange foreign currency. This type of risk arises since many countries regulate the transfer of money and conversion of foreign currency receipts. Unexpected regulatory changes can occur between entering and settling a contract. Transfer risks cannot be mitigated.
- *Country risk* – A change in government regulations prevents or restricts the ability to receive goods. Arises because many countries regulate the import and export of goods. Unexpected regulatory changes, such as cancelling of permits or licences, may occur between entering and settling a contract. Country risks cannot be mitigated.
- *Transport risk* – Involves that goods can be stolen or damaged during transport and may occur when the goods are transferred from the supplier. For protection against this type of risk the importer can insure oneself against transport risk.
- *Risk of fraud* – The supplier is not doing business in good faith. Risk of fraud arises since there are always people seeking to take advantage of others. Further, the complexity of international trade can make it difficult to detect fraud before it occurs. This can be avoided through dealing only with reputable suppliers, being aware of offers that seem too good to be true and through discussing reservations with a banker. The role of banks in facilitating trade transactions mean that they come across many attempted and perpetrated frauds.<sup>177</sup>

### **3.10.1 Country Risk Analysis**

The purpose of country risk analysis is to consider the probability that undesirable circumstances due to political, economic or social actions will negatively affect a company's business performance. Country risks can be grouped into four categories.

- *Political* – Probable disruptions due to internal or external events or regulations resulting from political action of governments or societal crisis and disturbances.
- *Economic* – Exposure of business performance to the extent that the economic business drivers can vary and in that way jeopardise profitability.
- *Competitive* – Related to non-economic distortion of the competitive situation due to cartels, networks and corrupt practices.
- *Operational* – Directly affects the foundation of a business, either because government regulations and bureaucracies add costly taxation or constraints to foreign investors or because the infrastructure is not reliable.<sup>178</sup>

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<sup>177</sup> [http://www.commbank.com.au/Business/tradefinance/TF\\_ImportRisks.asp](http://www.commbank.com.au/Business/tradefinance/TF_ImportRisks.asp), 2003-05-19

<sup>178</sup> Lasarre (2003), p 174-176

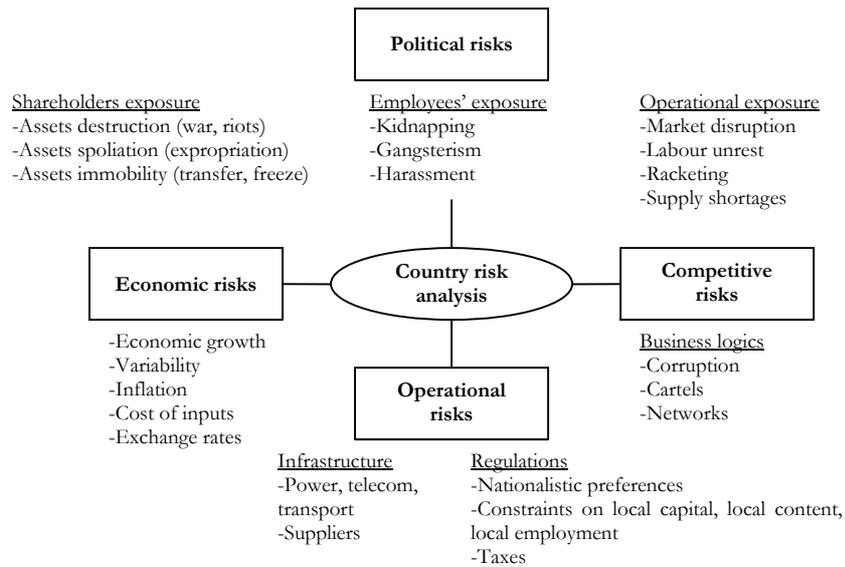


Figure 3.9 – Framework for country risk analysis  
Source: Lasarre (2003), p. 175

The framework for the investigation has evolved from fundamental and procurement/sourcing theories, and the original research questions, which is illustrated in the model below.

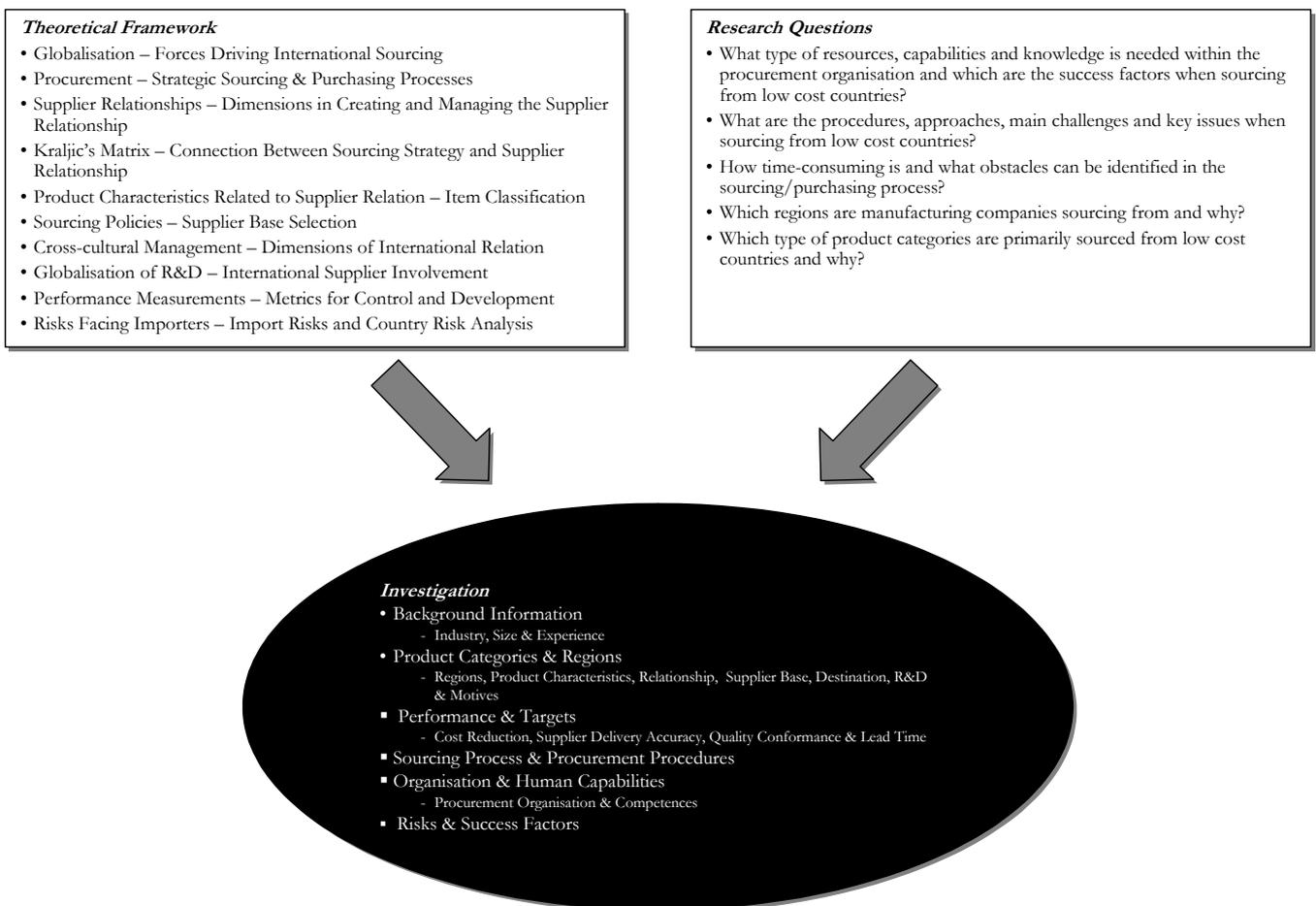


Figure 3.10 – Investigation framework

## 4 Empirical Survey

*This chapter begins with a presentation of some useful definitions. The most important and interesting empirical data will be presented by showing a diagram for each question. To every presented diagram there will be a descriptive text explaining the objective and the outcome of every question/diagram. In this way the gathered information can be illustrated to the reader in a clear and distinct way. Further empirical findings are presented in appendix A.*

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### 4.1 Some Useful Definitions

Some words and expressions that have been used in this survey/report were defined by the authors themselves, and will therefore be presented below.

- *Direct material*: includes production related materials that are part of the finished product and procurement of outsourced production but excludes services.
- *Direct procurement spend*: includes procurement spend on direct material.
- *Key players*: people with leading edge competences.
- *Landed costs*: includes supplier price and actual transport costs, e.g. transportation, customs, insurance, interest and storage. That is, the total cost of acquiring the item when it is ready for production.
- *Low cost regions (LC-Regions)*: includes parts of Central & South America, Asia, Africa, Central Europe and Eastern Europe with low costs of production.
- *Low cost countries (LCC)*: includes countries within the above-mentioned low cost regions.
- *Local knowledge*: includes language skills, integrity ethics & cultural awareness, local regulation knowledge, supplier industry structure and knowledge of the local industry network. I.e. the knowledge possessed by the natives working within a certain industry in a certain country.
- *Low-hanging fruits*: items that are relatively easier to manage in the procurement process. These may therefore be more profitable to start off with, when beginning to source from a new country/region.
- *Central Europe*: includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia.
- *Eastern Europe*: includes Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Turkey, Ukraine, Serbia and Montenegro.
- *South-East Asia*: includes Cambodia, Indonesia, Malaysia, Vietnam, Myanmar (Burma), Laos, Philippines, Taiwan and Thailand.

### 4.2 Outcome of the Survey

#### 4.2.1 Background Information

The first part of this empirical chapter is descriptive in its nature. The purpose is to give the reader some background information of the sample population.

The sample population is divided across a variety of industry categories. Below, figure 4.1, shows that the respondents are stratified as follows: Communications 4%, Electronic and High-tech 9%, Automotive and Industrial Equipment 65%, Pharmaceuticals and Medical Technology 7%, Construction 4%, and Other manufacturing industries 11%.

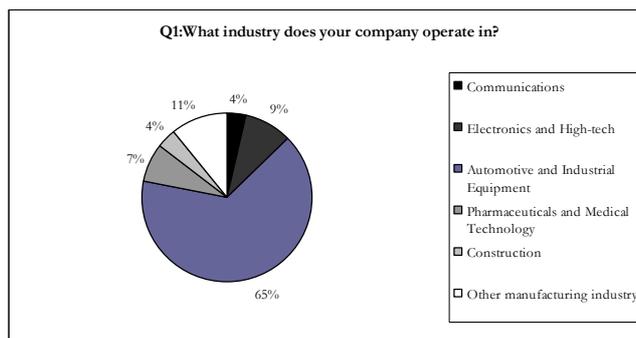


Figure 4.1 – Industry categories

Since the second selection criteria to participate in this survey were based on business size, the respondent groups were also classified by company annual turnover for the year of 2002. This shows that most participating companies (44%) had a turnover somewhere between 500 and 2500 million euros. The remaining part of the respondents was divided over a variety of size, reaching from less than 100 million euros to more than 12500 million euros in turnover. (Figure 4.2).

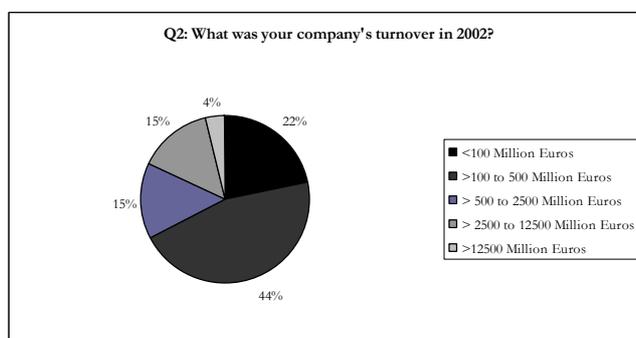


Figure 4.2 – Company turnover

Further, to clarify the magnitude of the companies buying power, the respondents were asked to indicate their total direct procurement spend as a percentage of annual turnover. The answers were distributed as illustrated in the bar chart below.

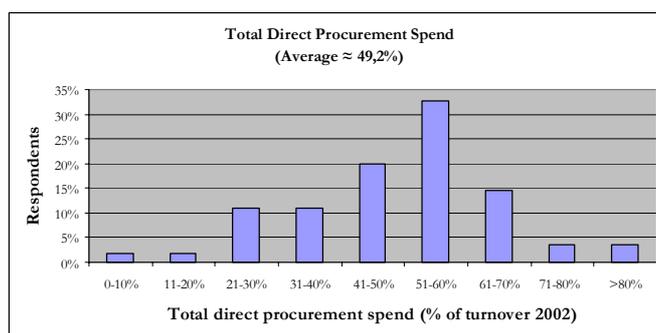


Figure 4.3 – Total direct procurement spend (% of turnover)

75% of the respondents have a total direct procurement spend that constitute more than 40% of their annual turnover with an average of 49,2%.

### 4.2.2 Experience & Regions

The intention of the following section is to identify for how long and from which low cost regions the respondents are/will be sourcing.

Generally, a high level of low cost country sourcing experience (average  $\approx$  6 years and median  $\approx$  7 years) was reported among the respondent companies. Despite this fact, it is worth mentioning that the level of experience varies greatly among the sample population. Figure 4.4 illustrates that more than 64% of the respondents have more than four years of experience. Note that 18% of the respondents are still in the start-up phase of this course of action.

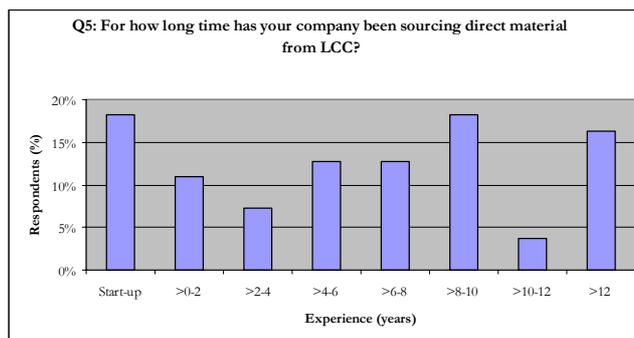


Figure 4.4 – Experience

In this part of the survey it can be established from which regions the sample population is purchasing from today and where they are willing to source from in 2006. The three primary regions are China, Eastern Europe and Central Europe. Moreover, these regions are also the ones being targeted most in the coming future. The only region from where the number of respondents sourcing will decrease in the coming years is Africa, which is presented in the figure below.

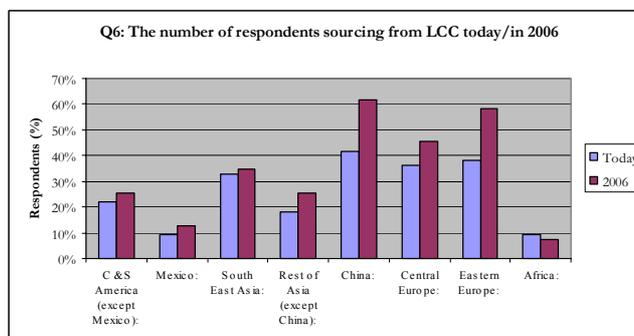


Figure 4.5 – Regions

It is also possible to illustrate how many of the respondents that actually have the ambition to increase their share of direct procurement spend sourced from low cost countries. As displayed in the figure below, 91% of the companies (excluding invalid answers) participating in this survey have this ambition. Meanwhile, only 9% indicated that they either want to decrease or maintain the same level of purchasing from these areas.

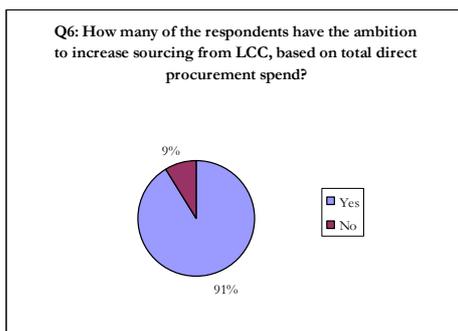


Figure 4.6 – Ambition to increase sourcing from low cost countries

The companies were asked to select up to five main motives for sourcing from low cost countries. Not surprisingly, the most frequently indicated answers were “To achieve lower prices” followed by; “To create competition among existing suppliers”, “Existing supplier has moved their production to a LC-Region/LCC” and “To facilitate existing production/sales activities within the LC-Region/LCC”.

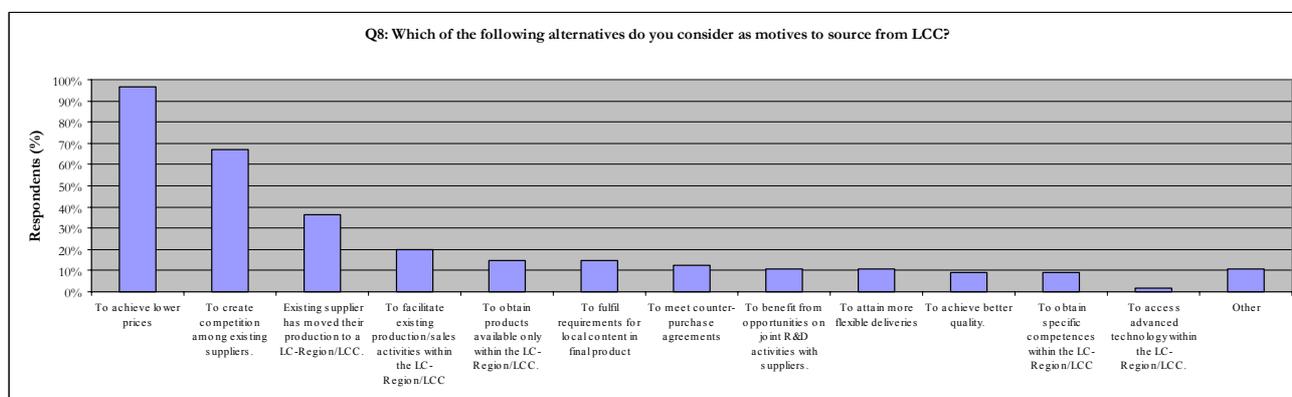


Figure 4.7 – Motives for sourcing from low cost countries

### 4.2.3 Risks & Success Factors

In question 22 – 24 the respondents were asked to select different factors/risks that are important to consider when sourcing from low cost countries. The intention was to identify critical factors for successful sourcing and the risks that companies are particularly exposed to when dealing with these regions.

Question 22 covers different organisational/relational approaches that can facilitate sourcing from low cost countries. The respondents were asked to select up to five approaches of importance. Table 4.1 illustrates the different approaches in descending order with the most frequently indicated answer represented at the top. 64% of the respondents believed that “Develop a high degree of trust between buyer and supplier” is important, which makes it the most indicated answer. Note that there is only a 6% difference between the top 4 approaches.

Q22: Which of the following organisational/relational approaches do you consider as particularly important when sourcing from LCC?	
Factors	Respondents (%)
Develop a high degree of trust between buyer-supplier, through continuous communication and open sharing of information	64%
Appoint supplier managers/lead buyers for part families/commodity groups	60%
Perform periodic "follow-up" to see if supplier maintains price, quality, service and technology competitive	60%
Focus on developing long-term relationships with LCC-suppliers	58%
Top company management involvement (your organisation)	38%
Establish local presence (e.g. production facilities or international purchasing offices) in LCC	33%
Create centrally coordinated cross-functional and cross-site commodity teams	24%
Establish procedures or specific training to secure/develop competences needed for LCC-sourcing	24%
Institute cross-functional and cross-site coordination of LCC-supplier selection decisions (e.g. through Corporate Sourcing Committees)	20%
Joint supplier development teams	15%
Perform joint evaluation of performance and sharing of risks/rewards resulting from the contract with the supplier	13%

Table 4.1 – Organisational/ Relational approaches

In question 23, the respondents could select up to 3 “import risks” that they consider themselves to be particularly exposed to when sourcing from low cost countries. The most frequently indicated risk was “Risk of non-delivery or non-performance” followed by “Exchange/currency risk” and “Transport risk”. “Risk of non-delivery or non-performance”, the risk that the supplier will not perform according to the contract (e.g. deliver the wrong or inferior goods), is directly connected to the performance of the supplier. The other two, “Exchange/currency risks” and “Transport risk”, are dependent upon a third party and the market environment and are not directly linked to the performance of the supplier. Other risks indicated by the respondents in the open-end alternative were “Misunderstandings” and “Non-ethical or non-environmental behaviour of the supplier in his own country”.

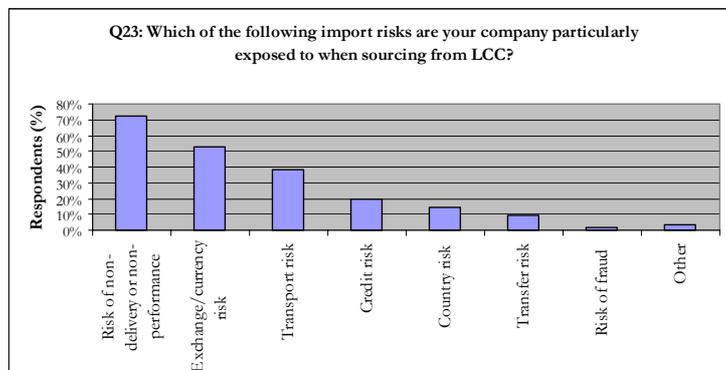


Figure 4.8 – Import risks

The objective of question 24 was to identify what major obstacles companies have to overcome in order to increase sourcing from low cost countries. In the chart below, the most frequently indicated answers are illustrated in descending order. The respondents could select up to 5 factors among 15 options and an open-end alternative. 38% considered “Lack of capabilities/resources and competences within your organisation” to be an obstacle which makes it the most frequently indicated alternative. “Comfortable agreements with present suppliers” made 36% followed by “Shortage of suppliers with adequate capabilities and competences in LCC” at 35%, “High switching costs” and “Sourcing from LCC does not facilitate JIT-delivery” at 29%. Other alternatives given by the respondents were; “Slow sample production start up”, “Our quantities are fairly low, low ROI”, “The demand on showing immediate profit makes experimenting a risky and unsafe element in your next Q-report”, “We have decided to have suppliers both locally and in LCC”, “Already buying close to 100%”, “Long lead-times” and “Competition vs. internal manufacturing and technical reasons”.

<b>Which of the following factors reduce your company's ability to increase the share of direct procurement spend from LCC?</b>	
<b>Factors</b>	<b>Respondents</b>
Lack of capabilities/resources and competences within your organization	38%
Comfortable agreements with present suppliers	36%
Shortage of suppliers with adequate capabilities and competences in LCC	35%
High switching costs	29%
Sourcing from LCC does not facilitate JIT-delivery	29%
Increases in additional costs of acquiring the products, which are not compensated by the reductions in purchase price	27%
Scarcity of suppliers in LCC that have sufficient quality systems in place regarding working procedures and environmental policies	27%
Increasing inventory costs	24%
Being bound by contract to present suppliers	16%
Scarce communication with suppliers in LCC	16%
Shortage of technology that facilitates purchasing and transferring of drawings/specs (EDI, CAD, CAM) in LCC	16%
Present suppliers' unwillingness to change locations	11%
Scarcity of suppliers in LCC that meet your company's code of ethics	7%
High import risks	5%
Suppliers in LCC have a negative impact on your company's brand value	2%
Other, please specify	15%

*Table 4.2 – Factors reducing the ability to increase the direct spend in low cost countries*

## 5 Analysis

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*In this chapter, the empirical findings are analysed and, as far as possible, compared to the theoretical framework presented in chapter three. The latter is somewhat complicated, since we have noticed that it is problematic to place the reality as distinctly as the theoretical framework advocates. Instead, the major part of the analysis has been performed by comparing the answers given by the Top Performers and the other companies. This chapter will result in a number of statements/conclusions that were followed-up through in-depth interviews.*

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### 5.1 Why Sourcing from Low Cost Countries?

According to chapter 3.1.1 a company trades on an international basis to gain some kind of competitive advantage in comparison with its competitors. These advantages can either be cost related or have a differentiating purpose. When it comes to low cost country sourcing the main reason to conduct such a strategy is to access resources leading to competitive advantages, by lowering the purchasing costs and therefore obtaining cost benefits. The price companies' pay for goods in these regions is significantly lower than in non-low cost regions. Primarily, this is due to the fact that the cost of salaries is substantially lower in low cost countries. Obviously, this is impossible to substitute or imitate. Since the cost reduction mainly consists of reduced cost of salaries, the items most suitable for low cost countries sourcing are labour-intensive products. The primary motive for low cost country sourcing is to obtain low cost labour and in that way strive for cost leadership.<sup>179</sup>

### 5.2 Background Information

#### 5.2.1 Specialisation

In the process of making sourcing more strategic, one method could be to specialise the purchasing department. 44% of the Top Performers have departments occupied exclusively with low cost country sourcing, while "only" 17% of the other companies have procurement departments working exclusively with these tasks. This implies how a company should organise its procurement department to be extraordinarily successful when conducting sourcing from low cost countries. If a company specialises its purchasing professionals (or at least some of them) on low cost countries, these people will become experts of how to deal with the special features characterising these countries, such as language skills, cultural awareness, and political condition etc. To acquire deep product, industry and supplier expertise the objective should be to develop experts exclusively occupied with low cost country sourcing.

### 5.3 Product Categories & Regions

#### 5.3.1 Experience

The respondents were asked to indicate for how long they have been sourcing direct material from low cost countries. Through the analysis an interesting and relatively distinct pattern was discovered. The average cost reduction is at a relatively low level in the start-up phase, before it starts to rise during the next couple of years. Companies with more than four years of low cost country sourcing experience do no longer benefit from the same level of annual cost reduction and the average cost reduction decreases gradually over time.

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<sup>179</sup> For further analysis please see appendix B

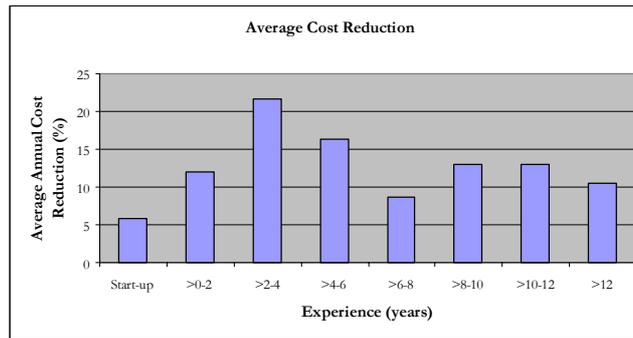


Figure 5.1 – Average cost reduction in relation to experience

The lower cost reduction in the early stage of the sourcing process can be explained by the initial investments, which occur when switching to a low cost country supplier. In most cases the supplier will not have all the resources, for example the appropriate machinery or the right level of competences and skills, needed to meet the supplying/the buying companies requirements. Furthermore, it takes time to settle in with the supplier and the new relationship. The start-up phase can be considered as a test period, during which the parties evolve to fit each other. It takes time to develop the right level of trust and degree of involvement needed to utilise the relationship optimally. After some time, when the relationship is settled (which off course takes a different amount of time for different relations) the buying company can gain the desired cost advantages aimed for, when entering the low cost country. Of course this cost reduction cannot be increasing or stable for infinity, which explains why there is a decline in cost reductions after four years of experience. If a company wants to maintain the same level of cost reduction over a longer period of time measures have to be taken. An example is to continuously seek for and evaluate new suppliers. In that way the buying company will be able to conduct competitive bidding when the contract expires, to constantly obtain the lowest purchasing price possible. Furthermore, the buyer can develop the relationship with its supplier/s. This can be done by evaluating and improving the relationship and in this case, it is important to strive for long-term objectives. Within chapter 3.3.2, four important dimensions of creating and managing a cross-national relationship were discussed. Cultural sensitivity, communication, conflict, and relationship performance should all be considered when developing a buyer/supplier relationship. Other examples on how to maintain stable cost reductions are; supplier development (reduce costs by improving the quality of the goods and working procedures) and to make the sourcing/purchasing process more effective.

After the initial phase, characterised by investments, companies benefit from higher cost reductions during the beginning of the experience curve. One explanation could be that companies start buying more easily managed products, so called “low-hanging fruits”<sup>180</sup>. The buying companies do not “dare” to start sourcing more complex items until the relationship is settled and a high degree of trust has been evolved. This, since these items will engage more time and money and therefore the risk at stake is higher regarding such purchasing. It is less difficult to benefit from the “low-hanging fruits” and consequently the cost reduction will be higher for these items.

Another interesting aspect to examine is the total sourcing process time over experience. While doing this we observed that this time varies greatly among companies with different experience. It even seems that the average total sourcing process time increases, despite a higher level of experience.

<sup>180</sup> More easily managed products that are relatively easy to “harvest”. These may therefore be advantageous and profitable to start off with, when beginning to source from a new country/region.

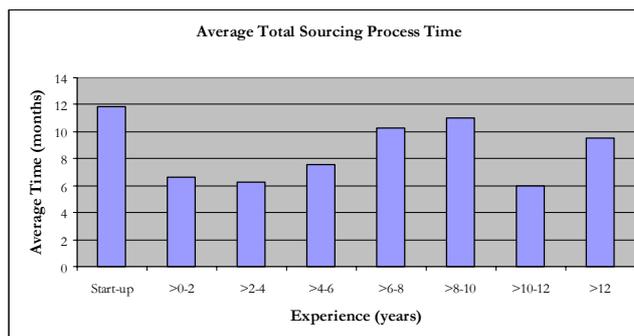


Figure 5.2 – Average total sourcing time over experience

One explanation is that more experienced companies are more thorough and accurate in their work when conducting sourcing from low cost countries. These companies have already experienced the pitfalls and obstacles involved in sourcing from these regions. This implies that a thorough procedure is more cost saving in the long run. Another explanation is the fact that “beginners” buy more easily managed items than the more experienced companies. Items that are more complicated to manage in the purchasing process require a more thorough and time-consuming process. (Note that the outcomes in figures 5.1 and 5.2 seem to correlate with each other).

### 5.3.2 Regions

According to chapter 3.1.5, the manufacturing growth rates were the highest in East and South-East Asia and the lowest in sub-Saharan Africa. In the area of production, it is also the East and South-East Asian regions that dominate the export rates. The empirical study somehow points in another direction. The respondents indicated China, Eastern Europe and Central Europe as the main targets for low cost country sourcing. Even regarding the coming future, the sample population considered these regions as most attractive for purchasing direct material at a lower cost. (Note that this analysis is based on the number of respondents that are/will be sourcing from different countries/regions). Though, in accordance with chapter 3.1.5 the empirical study shows that Africa is the region with the lowest share of sourcing. Africa is also the only region from which a fewer number of respondents will be sourcing in 2006, in comparison with today. This means that the attractiveness of the region is on a downward tendency, despite the increasing exploitation of low cost country sourcing. The latter contradicts with the discussion in chapter 3.1.5, which states that although the growth rate is the lowest in Africa, it will still be increasing to some extent.

Further, according to chapter 3.1.5 South-East Asia has over the last couple of decades been the fastest growing low cost region. With reference to the outcome of the survey this situation has changed significantly.

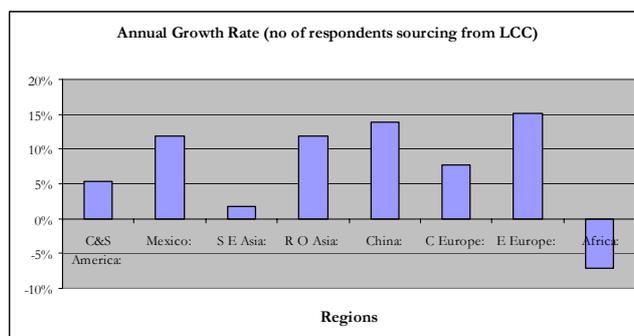


Figure 5.3 – Annual growth rate

More and more buyers are looking towards Eastern Europe, China, Rest of Asia and Mexico in the search for new suppliers. As can be observed in the diagram above, South-East Asia is, with the exception of Africa, the slowest “growing” region according to the sample population. This is probably due to the fact that the region has attracted a large number of buyers during a longer period of time. Naturally, a certain region cannot grow rapidly to infinity. Instead, at some point the growth rate reaches its culmination and it comes to a crease. Further, some regions might turn in to non-low cost regions as the relative structural cost of labour increases as the country develops. Then, other regions will be growing at a faster rate, relatively speaking, as buyers turn to other countries/regions for low cost suppliers. In the intense competition that exists in the market, companies will have to seek for new opportunities to stay competitive and turning towards new regions is one of the solutions. In line with this reasoning, the culmination of South-East Asia has led to the fact that the respondents have set their targets towards other regions, such as Eastern Europe and China. The advantages of sourcing from Eastern and Central Europe are that, neither the cultural differences, nor the geographical distance or the time differences will cause any severe trouble for these companies. Further, some of these suppliers will soon be in the same market (which will lower transaction costs), as many of the East and Central European countries have applied for a membership in the European Union. On the other hand, China will probably bring new difficulties into the process. Here, new language skills, cultural awareness and knowledge of the political climate might be crucial to be able to source direct material successfully.

However, in terms of euro value the picture is somewhat different. The three primary regions of low cost country sourcing today are (in descending order) China, Central Europe and South-East Asia. These regions will also be the largest supplier countries in 2006. Though, the share of total euro value will still decrease from South-East Asia as was indicated in the previous part of the analysis.

### 5.3.3 Ambition to Increase Sourcing from Low Cost Countries

One of the basic intentions of the empirical survey was to ascertain if low cost country sourcing was a pronounced strategy when aiming to increase cost reductions or cost savings. Therefore the following sub-hypothesis was formulated: “Given the objective to increase total cost reductions, companies have the ambition to increase sourcing from low cost countries”. By combining answers from different questions in the survey the hypothesis could be confirmed. 100% of the respondents having the aim to further reduce their total procurement spend also have the ambition to increase the share of direct procurement spend from low cost countries. Consequently, low cost country sourcing is an enunciated strategy to lower a company’s costs or to increase its cost savings. Therefore, sourcing from low cost countries can be seen as a way of obtaining competitive advantages.

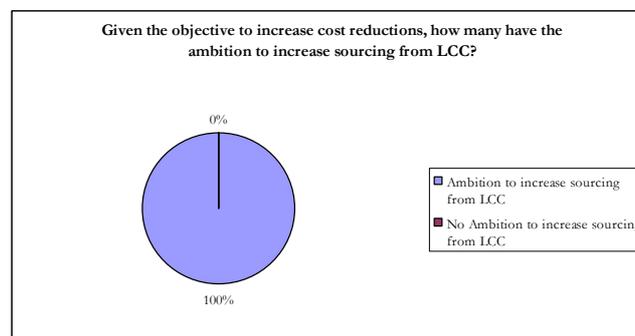


Figure 5.4 – Ambition

### 5.3.4 Product Categories

Within this area we have chosen to base our analysis on four different product categories, which gives the reader a general idea of what the companies are sourcing from low cost countries. It also shows the level of completion of the direct material purchased/targeted to purchase from. The reader should note that this analysis is based on how many times a certain product category has been indicated in the survey. The chosen format of the empirical survey makes it impossible to estimate what share of total purchased volume each product category constitutes. Our intention is instead to illustrate general trends.

#### Allocation of Product Categories

The first step in this analysis is to get an apprehension of how sourcing of different product categories, from low cost countries, is divided today and in 2006. That is, to what extent each product category is purchased from low cost countries. The percentages presented in the table below are based on the total number of respondents in each subgroup. For example, 22% of the Top Performers are sourcing raw material today from low cost countries. The same figure for the other companies is 28%.

Product Category	Top Performers		Other	
	Today	2006	Today	2006
Raw materials	22%	44%	28%	35%
Simple parts/components/subassemblies	78%	78%	63%	72%
Complex and innovative parts/modules/systems	56%	56%	13%	33%
Finished products	56%	89%	24%	46%

*Table 5.1 – Distribution of product categories today/2006*

As the table shows, 44% of the Top Performers intend to source raw material from low cost countries during the coming three years. This implies that the raw material is only available within these regions and/or available to a lower price. Furthermore, more Top Performers, 89% in 2006 compared to 56% today, intend to source finished products from low cost countries. To do this, the Top Performers must evolve a high degree of trust and aim on developing a closely linked relationship with their suppliers. Keeping the experience of these respondents in mind, this implies that additional cost reductions are to be found within these product categories and there are business opportunities within “labelling” (i.e. sourcing of finished products). Regarding the other companies, an increase can be observed regarding all four product categories. Since this group’s average experience is lower than Top Performers’, they might not have reached the point when realising which product categories that are more suitable than others to source from low cost countries. That is, where the largest cost saving potentials are to be found. Though, it should be added that the amount of experience varies greatly within this subgroup. This could explain the increase in all four categories. Notable is that the size of increase grows in relation to the degree of completion in each product category.

#### Product Characteristics

In appendix A we classified the different product categories in accordance with the product characteristics in Kraljic’s matrix on strategic sourcing. To analyse this further we calculated what the characteristics are, for the items being sourced from low cost countries.

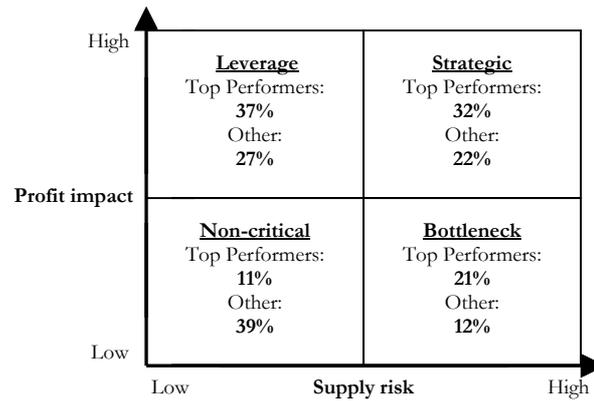


Figure 5.5 – Kraljic’s matrix

The Top Performers source strategically important items from low cost countries to a larger extent than other companies. In total 53% of the items sourced by the Top Performers are either strategic or bottleneck products compared to 34% for the other companies. Instead, the latter group is more concentrated on sourcing items characterised by a lower supply risk, i.e. leverage or non-critical products. According to traditional purchasing theory, suppliers of more critical and strategic products should be situated geographically closer to the purchasing company. Therefore, this observation could be explained by the fact that the Top Performers to a larger extent source their items to a local production facility or by different levels of experience<sup>181</sup>. In general, the other companies have a lower average experience of low cost country sourcing (5.8 years vs. 7 years for Top Performers), which indicates that these companies have not been collaborating with their suppliers as long as the Top Performers. The issues in chapter 3.4 should be considered when managing suppliers of different type of products in low cost countries.

**Level of Relationship**

The level of relationship has been divided into four categories: independent, cooperative, collaborative, and fully integrated. Considering the different product categories, and thereby the supplier market complexity/strategic importance, it is possible to examine the level of integration of the buyer/supplier relationship for different types of purchased items. In the table below, we have estimated the average level of integration, for all respondents, over product characteristics. This shows that the relationship is more integrated the more strategic and complex the product is, which is in accordance to what the theories within this area state. (Note that one equals an independent and four a fully integrated relationship.)

Product Characteristics	Average level of integration
Non-critical	1,83
Leverage	2,16
Bottleneck	2,22
Strategic	2,41

Table 5.2 – Average level of integration

Further, we observed that none of the Top Performers have an independent relationship with their supplier and have on average, a more integrated level of relationship regarding all four product characteristics. Therefore, the tendency within this sample population is that the companies that have been most successful, and have a higher average of experience, tend to have stronger relations to its low cost country suppliers. The Top Performers seem to move towards a fully integrated relation to a larger

<sup>181</sup> Further reasoning please see Chapter 5.3.1

extent, than the other companies. Further, this implies a higher degree of supplier involvement in the product development process. Since the Top Performers have been more successful in their low cost country sourcing, they have developed a more accurate level to accomplish their objectives. The “chosen” level of relationship seems to fit the business environment in which these companies are active. The level of experience has most likely been a contributory cause when evolving the relationship. After a few years of sourcing from low cost countries, the buyer and the supplier will probably realise what type of integration is needed for a specific relation.

To modify the level of integration, the other companies can, together with their low cost country suppliers, consider three principles, which form the basis of a successful buyer/supplier relationship (please see chapter 3.3.3 for explanations):

- Strategy
- Joint benefits
- Economic effect

If all these issues are clarified, further development of the relationship depends on possible benefits as well as the required investment. A final factor to consider is; which level of integration is the most suitable for the accomplishment of joint objectives. The selection of relationship level, i.e. independent, cooperative, collaborative or fully integrated, is dependent on the above-discussed issues.

Communication (for example open sharing of information), trust, commitment and cultural sensitivity are other examples of success factors in a well functioning buyer/supplier relationship.

**Supplier Base**

A contributory factor in making sourcing more strategic could be how to structure the supplier base. The analysis conducted on this matter, was based on the total number of respondents to illustrate the general trend within the sample population. (Note that the outcome of this analysis does not necessarily apply solely on low cost country sourcing, but on all types of purchasing from suppliers, nationally or internationally).

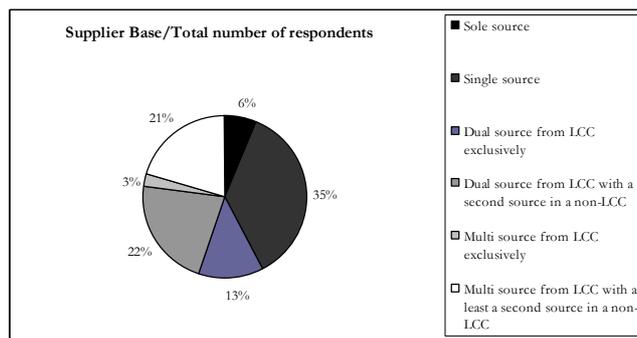


Figure 5.6 – Supplier base/Total number of respondents

As the figure shows, the supplier base is constituted mainly of one or two suppliers. More than 70% of the responding companies indicated that they either conduct sole, single or dual sourcing from low cost countries. According to chapter 3.6, building up the supplier base with a small number of suppliers leads to certain advantages. Through consolidation of volumes it is possible to achieve lower prices, lower operating costs, lower transaction costs, and lower costs for quality inspections. Further, it is easier to develop a more integrated collaboration, which leads to a closer relation between the buyer and the supplier. In that way the communication between the parties is facilitated, and they can develop a higher degree of trust. By concentrating on few suppliers, joint objectives can be set and the management of

supplier development is facilitated. The interdependence is larger, which means the retention of the evolved integration is more easily managed. Finally, working with fewer suppliers will facilitate early supplier involvement in the product development process, which can improve quality, costs, delivery accuracy, and time to market substantially.

Sole sourcing is not very widespread within the sample population. None of the Top Performers are sole sourcing from these regions, which can be seen as something positive since it implies that the buying company could be trapped in a relationship with a poor supplier, due to their patent position.

It has been claimed that dealing with many suppliers can involve competitive bidding which could lead to lower purchasing prices. But, the supplier with the lowest price is not always the best supplier. Instead, a closely linked relationship, a high degree of integration and trust, and well-developed ways of communication is more crucial when collaborating with suppliers in low cost countries. All in all, companies should strive for a more concentrated supplier base structure.

Approximately 40% of the respondents stated that they in one way or another source from more than one supplier, with the second supplier situated in a non-low cost country. This implies a certain degree of uncertainty when sourcing from low cost countries. This can be seen as a precautionary measure conducted by the purchasing companies to secure delivery of direct material. Therefore, we believe that the responding companies in this survey have not yet developed the sufficient degree of trust and developed their suppliers adequately. However, patience is needed since such a development takes time, probably longer than when the supplier is located in a non-low cost country. To do so, the buyer and the supplier have to work closely together to; evolve the most suitable level of integration for the relationship, improve business processes and working procedures as well as setting joint objectives. This will in its turn lead to the evolving of trust. Other explanations are presented in chapter 5.6.2.

The share of sole sourcing increases the more strategic the item is while multi sourcing decreases under the same circumstances. This is probably due to the fact that such products require a closer relationship and a higher degree of integration. Further, these suppliers may be the only ones producing this sort of product due to different patent positions from R&D activities or other circumstances making the supplier the sole supplier.

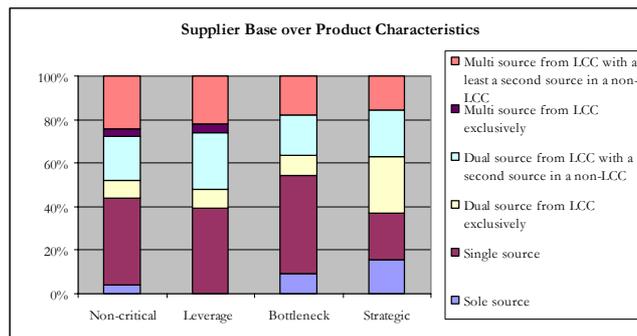


Figure 5.7 – Supplier base/Product characteristics

### Destination of Sourced Items

The success of a company, sourcing from a low cost country, can depend on the destination of the sourced direct material. In our analysis, we discovered that the Top Performers are purchasing to their local facilities to a larger extent than other companies. This is one of the reasons why they have a higher cost reduction, a shorter lead-time and better supplier delivery accuracy (see chapter 2.3.1). On the contrary other respondents have a smaller cost reduction, a longer average lead-time, poorer supplier

delivery accuracy, and are at the same time sourcing more items to production units outside low cost regions. One thing is for sure, it is more expensive and it takes more time to transport purchased items cross-nationally. Thus, the geographical distance is an essential factor. But, what if the purchased goods are sourced from one low cost country to another, say for example from India to China? How will the costs be affected in that case? Surely, it will be more cost- and time-consuming than sourcing within the same low cost country. Further, it is easier to work with the supplier to improve quality if the items are sourced locally within the same country. This, since you have the benefits of local presence.

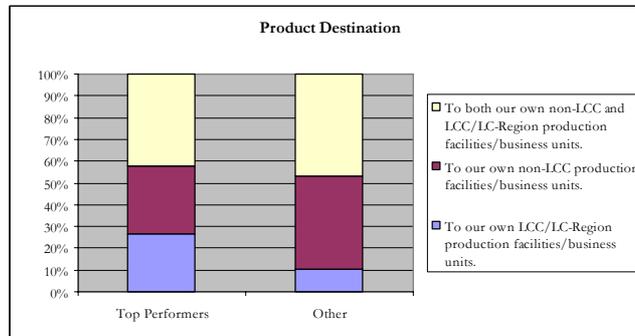


Figure 5.8 – Item destination

### Joint R&D Activities

The trend within many industries is to involve the suppliers at an early stage of the product development process. The objective is to utilise the suppliers’ skills, resources, capabilities, and increase the efficiency of the R&D process. In the case of low cost country sourcing, these procedures also provide an opportunity to access low-cost and good-quality scientists. In line with this reasoning, it is interesting to examine how these objectives are affected by the fact that the development-supplier is located in a low cost country. As table 5.3 shows, the Top Performers have principles and instruments to support joint R&D activities with the supplier for 89% of the product categories sourced from these countries. This practice is observed by only 47% of the other companies.

Does your company have principles and instruments to promote and support joint R&D activities with suppliers of these products?	Top Performers	Other
Yes	89%	47%
No	11%	53%

Table 5.3 – Joint R&D with low cost country supplier

On average, the Top Performers do not consider the fact that the supplier is located in a low cost country has affected the opportunities on joint R&D activities particularly negatively. On the contrary, in the case of sourcing complex and innovative parts/modules/systems and finished products the Top Performers believe that these activities are supported when the supplier is located in these regions. Consequently, it is possible to involve the supplier in the R&D process to increase efficiency and reduce costs.

How has the fact that your <u>supplier is located in a LCC</u> affected the opportunities on joint R&D activities?		
	Top Performers	Other
Considerably better (=1)	18%	4%
Better (=2)	6%	7%
Not any significant difference (=3)	24%	50%
Worse (=4)	53%	36%
Considerably worse (=5)	0%	4%
<b>Average</b>	<b>3,1</b>	<b>3,3</b>

*Table 5.4 – Supplier location/Joint R&D*

The outcome of the analysis implies that joint R&D activities can be very beneficial when sourcing from low cost countries. This assumption is supported by the fact the Top Performers have experienced a higher cost reduction, better quality and shorter lead-time when sourcing from these regions. As a contrast, the other companies have experienced a decreased level of quality and an increased lead-time. They also find the opportunities to these activities to be more negatively affected when the suppliers are located in low cost countries.

To be able to conduct successful joint R&D activities with the supplier the working procedures and instruments needed to support these activities have to be implemented within the organisation. Further, a high degree of integration is needed, means of communication has to be secured and the buyer/supplier relationship has to be well developed. The Top Performers have more experience of sourcing from low cost countries and have thereby been able to develop a higher degree of trust and more specified ways of communication. Further, they have been able to evolve the relationship with the supplier and they source to local production units to a larger extent, which in its turn facilitates communication. Consequently, it is easier for them to conduct successful joint R&D activities.

Some of the main motives to conduct product development in collaboration with suppliers in low cost countries are; access to low-cost and good-quality scientists and engineers, proximity to market and access to geographical clusters.

Since the other companies are not as successful as the Top Performers they might have encountered some of the following problems in the process of involving their supplier in the R&D activities; lack of experience, lack of communication and trust, unable to identify suppliers with the required competences and technical capabilities, and/or insufficient R&D processes, principles and instruments within their own organisation. In order to be successful the managerial activities needed and the instruments to support such involvement have to be identified. An internal organisation that supports the execution of the different activities related to integrated product development and sourcing should be developed. Finally, the human resources (key-players) needed for product development activities must be involved.

### **5.3.5 Motives**

The top five motives for sourcing from low cost countries (for the whole sample population) could be observed in chapter 4.2.2. To take matters further, we compared the average motives selected of each subgroup. We made comparison to see whether the reasons for purchasing direct material from low cost countries are the same for Top Performers as for other companies. The three top motives are the same in both sub categories. Not surprisingly, these are:

- To achieve lower prices,
- To create competition among existing suppliers,
- Existing supplier has moved their production to a low cost region/country.

The first two do not need any explanation, but the third means that already existing suppliers, to which the buying company previously have had a relation, has relocated their business in a low cost country to lower their production costs. The buying company continues to purchase items from these suppliers and in that way moves its sourcing to these regions. Presumably, these companies experience the other benefits from low cost country sourcing as well. Further they do not have to overcome the difficulties involved in the process of identifying and selecting an appropriate supplier within these regions. (Note that 44% of the Top Performers indicated this alternative compared to 36% of the other companies)

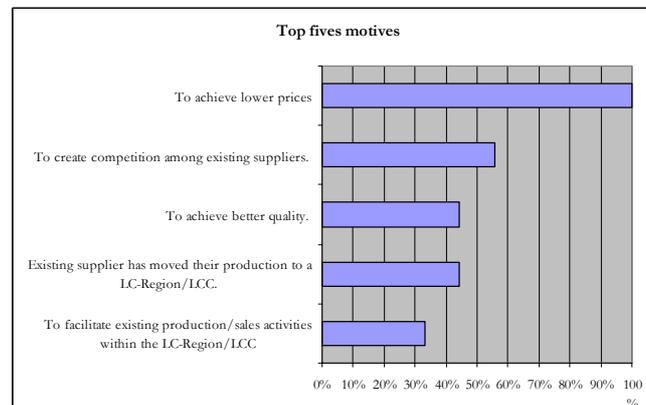


Figure 5.9 – Top five motives (Top Performers)

One other key reason for low cost country sourcing, according to the Top Performers, is to achieve better quality on the purchased direct material. These companies might have invested in developing these suppliers, so that the processing of direct material matches the set criterions. In that way, they secure that the quality is good enough to satisfy the final customers' demand. Furthermore it could also mean that these companies are well integrated with the suppliers, and in that way have developed a high degree of trust towards them.

The motive “To facilitate local activities” was regarded as a more important motive by the Top Performers than by the other companies. This implies that the Top Performers have more local production facilities/business units within low cost countries. Naturally, it is more profitable to avoid cross-national purchasing. Thus, the objectives to conduct such an approach are to improve co-ordination and to lower the costs further.

Another motive worth mentioning is that the other companies stated that they conduct this type of sourcing due to requirements for local content. This means that there are i.e. regulations demanding that some parts of the products originate from a specific country.

## 5.4 Sourcing Process & Procurement Procedures

### 5.4.1 Searching for and Selecting Potential Suppliers

The first step, searching for and selecting potential suppliers, is not characterised by differing opinions by the respondents. However, the Top Performers do not consider it as difficult as other companies to understand the industry trends and the impact on supplier economics and prices. Global sourcing requires buyers to have a thorough understanding of the economic and business environment of the foreign markets. Since the Top Performers are more experienced their buyers/procurement professionals have had more time to acquire deep product, industry and supplier expertise (please see chapter 5.5.2).

### 5.4.2 Evaluating Suppliers

Gathering information about the suppliers' in low cost countries (e.g. financial information, supplier cost structure and strategic direction) is considered to be more difficult by the Top Performers. It is not evident whether they find it more difficult to get access to information, require more detailed information or a larger quantity of information than the other respondents. Further, we have not yet clarified how the respondents gather information when sourcing from low cost countries. Since they outperform the other procurement organisations, we assume that the Top Performers are more thorough in their process of gathering information to be able to evaluate their suppliers properly. Given this assumption it should also be relatively easier to perform total cost analysis, analysing switching costs and identifying savings potentials/opportunities resulting from different strategic alternatives/suppliers. Further, the other companies experience "Increases in additional costs of acquiring the products, which are not compensated by the reductions in purchase price" as one of the top five obstacles. By gathering reliable information and performing thorough total cost analysis, the true costs of the different alternatives will be clarified. Consequently, if the Top Performers were more thorough in their evaluation procedure, it would then be easier for them to identify the true potential alternatives.

Finding a supplier with the adequate capabilities is an obstacle (please see chapter 5.6.2) that companies have to overcome in order to increase their purchasing from low cost countries. Therefore, it is not surprising that this sub-activity is considered to be more difficult by both groups when sourcing from these regions. Further, the Top Performers have longer experience and are sourcing more items characterised by a high supply market complexity (i.e. a limited number of potential suppliers) than other companies. This explains why they consider it relatively more difficult to find suppliers with the adequate capabilities.

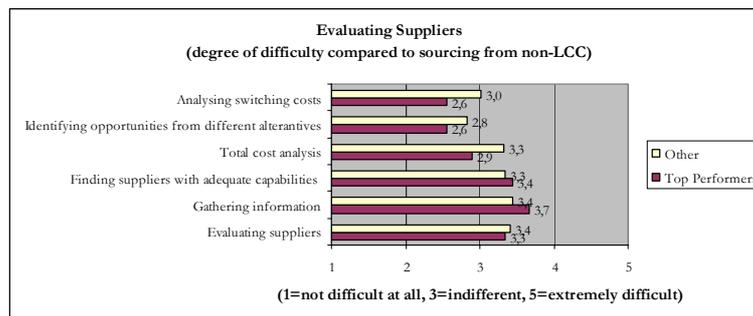


Figure 5.10 – Evaluating suppliers

### 5.4.3 Negotiating With and Selecting Final Suppliers

Despite challenges as distance, time, language and cultural differences the Top Performers do not believe that it is more difficult to negotiate and select final suppliers when sourcing from low cost countries. By hiring local personnel, with adequate language skills and understanding of the local culture, these problems can be mitigated and facilitate negotiations with the suppliers.

Both groups of respondents think that the sub-activity "Verifying suppliers' true capabilities, competences, potential savings and selecting final suppliers" is more difficult. This is either the result of problems regarding long lead times for sample production or poor evaluation of the suppliers at an earlier stage of the process.

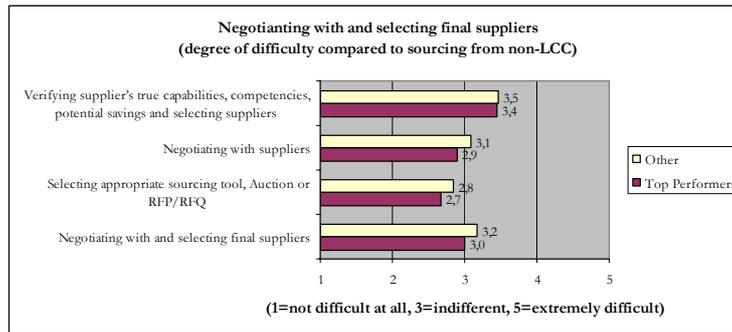


Figure 5.11 – Negotiating with and selecting final suppliers

#### 5.4.4 Designing Contract and Finalising Agreements

Designing contract and finalising agreements is not particularly complicated according to both groups of respondents but there are some difficulties concerning the sub-activities involved. Both groups have experienced problems in taking legal aspects and requirements into account. This since there might be additional legal factors to consider that limits the free flow of resources and impose localisation constraints when sourcing from low cost countries.

The Top Performers believe that it is comparatively easier to agree on contract terms and conditions regarding business processes with suppliers from these regions. This could be the result of working with standardised contracts for low cost country purchasing/international purchasing, working with items that are easy to manage in the contract procedure or by the fact that suppliers in low cost countries are more willing to do business. One additional factor is that these suppliers are not used to working with the same degree of formal documents/processes and tend to deal with problems/overcome obstacles as they occur instead of concluding complex contracts.

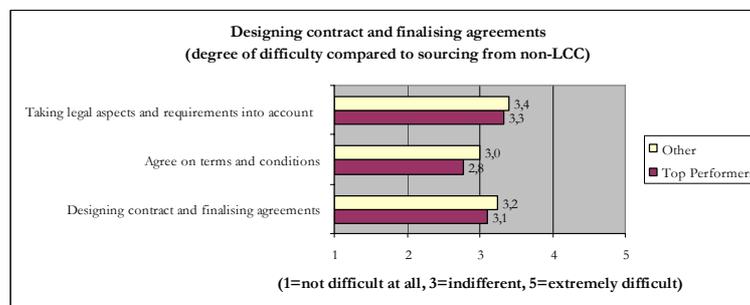


Figure 5.12 – Designing contract and finalising agreements

#### 5.4.5 Starting Up Production

According to the survey the Top Performers have no difficulty in developing and measuring the performance of their suppliers. By reducing the supplier base, procurement professionals can work closely in a buyer-supplier partnership and help their suppliers to perform operational improvements. As we earlier declared, the Top Performers are on average working more closely with their suppliers than other companies, which explains why they find it relatively easier to improve and measure the performance of their suppliers. Further, if the buyer and supplier have been working with each other previously (compare with chapter 5.3.5) the same level of improvement is not needed and consequently it is relatively easier to conduct this activity.

Performance measurements should be regarded as a starting point, on how to improve performance and develop a better understanding between the buyer and the supplier. If they are recognised merely as a punishment/reward tool in supplier relationships, the results may be the opposite of those desired. Suppliers in low cost countries might perceive performance measurements merely as a tool to enforce compliance, why some of the respondents experienced difficulties in implementing them.

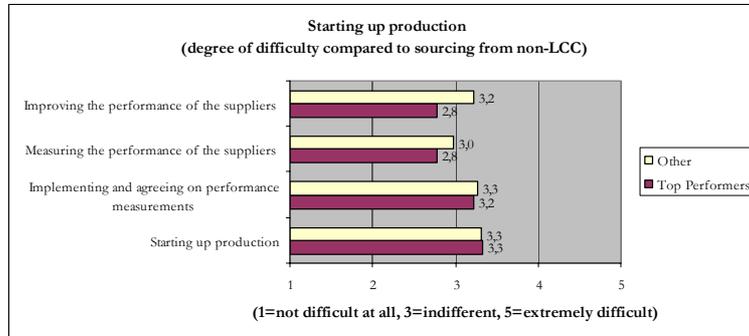


Figure 5.13 – Starting up production

#### 5.4.6 The Purchasing Process

It is impossible to monitor production, perform inspection of the goods prior to shipment, resolve technical and quality issues as they occur and assure that all products are being made according to specifications without the help of local personnel.

The Top Performers are, to a larger extent, purchasing to their own local production facilities in low cost countries, than other suppliers. This is an explanation to why they consider the operational part of procurement relatively easier to conduct since they benefit from local presence when sourcing from these regions.

Sub-activities such as order processing, delivery follow-up and paying & financial transactions can be facilitated by the suppliers, if they are willing to align their processes and systems with the buyer. E.g. the receipt and storage of ordered materials can be assisted by supplier managed inventory or JIT-delivery. At this stage, we have not yet revealed how the Top Performers proceed to make these activities easier when sourcing from low cost countries.

Both groups of respondents have experienced that quality problem handling requires additional resources, if the supplier is located in another country. However, the Top Performers are on average sourcing items with better quality and do not believe that this sub-activity is as difficult as the other companies.

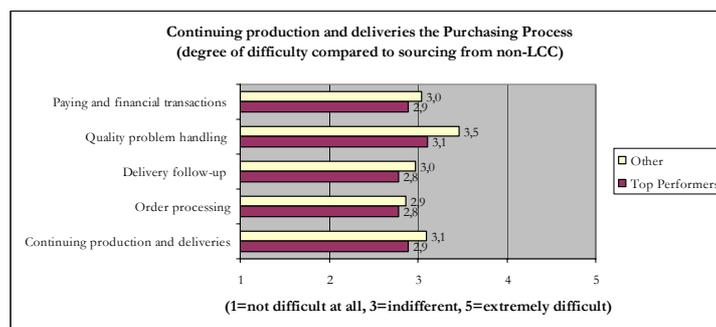


Figure 5.14 – The purchasing process

### 5.4.7 Managing the Supplier Relationship

Despite dimensions in cross-national relationships such as distance, communication, language and cultural differences, the Top Performers do not consider it difficult to manage the supplier relationship when sourcing from low cost countries. By definition, these dimensions can be mitigated by establishing local presence and engaging local personnel. Further, managing conflicts and communication is facilitated by working closely with suppliers with open sharing of information and expectations. 67% of the Top Performers have established some kind of local presence (please see e.g. chapter 5.5.1). They are on an average working more closely with their suppliers, believe in developing a high degree of trust by open sharing of information and are focusing on long-term relationships (please see chapter 5.5.3). Since the Top Performers are working more closely with their suppliers this might also inspire them to fulfil their commitments, which improve the overall relationship performance. All of these factors should promote a better relation with their suppliers and explains why they do not consider it difficult to manage the supplier relationship when sourcing from low cost countries.

Moreover, communication-technology as Electronic Data Interchange (EDI) and e-procurement systems have made transactions cheaper, faster and diminished the risk of misunderstanding between buyer and supplier. We have not yet investigated to what extent and what type of technology they utilise when sourcing from low cost countries.

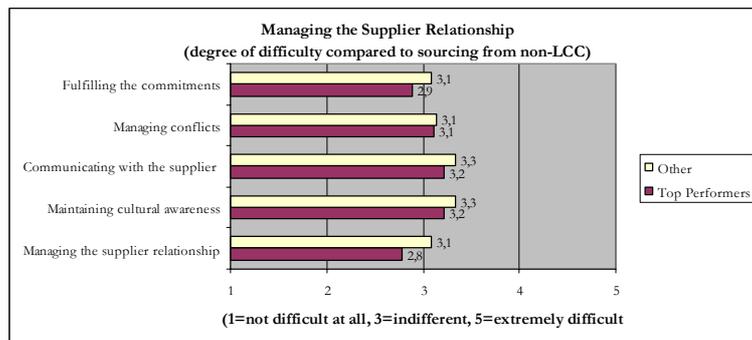


Figure 5.15 – Managing the supplier relationship

### 5.4.8 Sourcing Process Time

Traditionally, sourcing processes have been taking an average of three to four months for non-complex and six months for complex materials. Sourcing from low cost countries is considerably more time-consuming, taking an average of more than nine months. There is not much difference between the sourcing process time of the Top Performers and other companies. However, the Top Performers must be considered more efficient since they source more complex items and manage to identify relatively better suppliers during the same period of time as the other companies.

Total sourcing process time	Top Performers	Other
Average (weeks)	36,4	37,2

Table 5.5 – Total sourcing process time

If we break down the process into its different steps, using the same estimations as earlier (please see appendix A), the total average of all steps is 46,4 for the Top Performers and 42,0 weeks for the other companies. Thus, the Top Performers must be working simultaneously or continuously with the different activities to be able to perform the whole process more rapidly. We further assume that they are more thorough in their procedure since most steps are considered to be more time-consuming.

	Searching for & selecting potential suppliers	Evaluating suppliers	Negotiating with & selecting final suppliers	Designing contract & finalizing agreements	Starting up production	Total Average
Top Performers	12,0	6,7	8,0	6,4	13,3	46,4 (weeks)
Other	10,3	7,7	6,9	5,8	11,3	42,0 (weeks)

Table 5.6 – Break down of total sourcing process time (weeks)

## 5.5 Organisation & Human Capabilities

### 5.5.1 Different Approaches to Purchasing

To ensure the lowest possible cost of ownership and exposure to risks, it is necessary to identify the best way for a company to approach purchasing from low cost countries. According to Chapter 3.2.6 there are four ways to approach purchasing in the Far East, which we consider applicable for most purchases in low cost countries: Purchasing on a direct basis from a domestic purchasing office, Purchasing through local sales agents or domestic offices of low cost country suppliers, Purchasing through an independent third party IPO (International Purchasing Office) organisation, and Purchasing through a company-owned IPO or IPO Network. Yet these alternatives do not cover all possible approaches to purchasing. Companies may also purchase directly from the supplier through a production facility or any other type of business unit employing procurement professionals located in low cost countries.

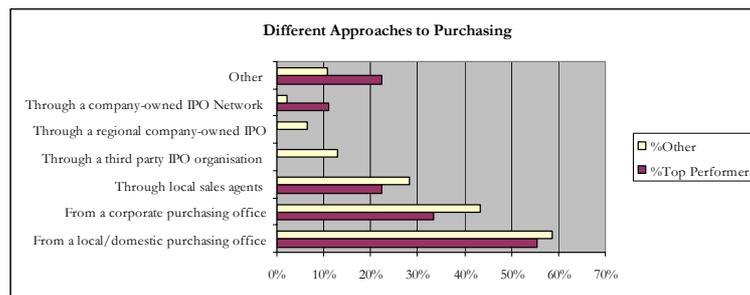


Figure 5.16 – Different approaches to purchasing

Almost 60% of the companies indicated that they in some cases are “Purchasing on a direct basis from a local/domestic purchasing office”. This observation aroused the suspicion that the respondents might have misinterpreted the question, which we will follow up by focused individual interviews in chapter 6. “Purchasing on a direct basis from a local/domestic purchasing office”, was intended to be interpreted as purchasing materials directly from a local purchasing office in Sweden and not locally in low cost countries. Further, suppliers can be identified, evaluated and managed by personnel located in low cost countries while the decisions and orders are called from Sweden. These two alternatives might explain why so many respondents have indicated the last alternative.

22% of the Top Performers indicated that they are purchasing directly from the supplier, which we interpret as purchasing through an office located in low cost countries. Note that only 11% (i.e. one Top Performer) is purchasing through an IPO. The outcome suggests that purchasing through an IPO is not a common approach to purchasing from these regions. However, it does not tell us whether it is a successful approach or not. To analyse this, we calculated performance measurements for companies that in some cases are purchasing through a company owned or third party IPO organisation and compared with the other approaches.

	CR	QC	SDA	LT
IPO	13%	3,1	2,9	2,6
No IPO	12%	2,8	2,8	2,5

(QC, SDA, LT; 1=considerably worse, 3=indifferent, 5=considerably better compared to sourcing from non-low cost countries)

Table 5.7 – Performance measurements over IPO/no IPO

The cost reduction concerns landed costs, which should include the cost of operating/engaging the IPO according to our definition. On average, the respondents that are purchasing through an IPO benefit from slightly higher cost reduction along with other performance measurements compared to the other approaches. Yet, many of them did not qualify as Top Performers since they have to carry additional costs for operating the IPO (or did simply not indicate their cost reduction).

At this stage, it is hard to recommend any best purchasing approach when sourcing from low cost countries since there might have been many respondents misinterpreting the last alternative. However, suppliers in these countries have a tendency to quote aggressively for business. Consequently, companies will need to develop the means to purchase directly from the suppliers to obtain the lowest prices for components and assemblies. We strongly believe that the best procedure must be facilitated by some kind of local activity/personnel, but not necessarily an IPO. This, to mitigate distances, language, cultural barriers and risks that are involved when sourcing from low cost countries. Learning about these issues is a very expensive, time-consuming and complex problem. Employing domestic personnel can in turn mitigate these problems. We compared the performance measurements of companies with any type of local activity with those who only have operations in non-low cost countries.

	CR	QC	SDA	LT
Local Presence	13%	2,9	2,9	2,5
No Local Presence	10%	2,9	2,7	2,5

(QC, SDA, LT; 1=considerably worse, 3=indifferent, 5=considerably better compared to sourcing from non-low cost countries)

Table 5.8 – Performance measurements over local presence/no local presence

Companies with any type of local activity perform better than the other companies. Nevertheless, both the calculations in tables 5.7 and 5.8 should be interpreted cautiously since they comprise bias. Just because the respondents have indicated that they have local presence or an IPO in one case, does not necessarily mean that they are purchasing all their materials through these low cost country facilities.

### 5.5.2 Competences/Capabilities

Traditionally, procurement required good negotiating skills, knowledge of the supplier market and the internal purchasing routines. Due to the raise in international purchases these competences need to be supplemented by knowledge of international finance, international logistics, international law/regulations, cross-cultural knowledge and language proficiency. To clarify which of these skills are required for successful sourcing from low cost countries, the Top Performers average opinion concerning the different competences have been calculated.

Top Performers	Importance	The Knowledge Gap	Rank
Language Skills	4,4	Local Regulation Knowledge	1
Supplier Negotiation	4,1	Language Skills	2
Extensive Product & Commodity Knowledge	4,0	Total Cost of Ownership Analysis	3
Handling of Customs, Currency & Incoterms	4,0	Supplier Industry Structure	4
Integrity, Ethics & Cultural Awareness	4,0	Supplier Negotiation	5
Total Cost of Ownership Analysis	3,8	Handling of Customs, Currency & Incoterms	6
Value Creation	3,8	Value Creation	7
Local Regulation Knowledge	3,7	Integrity, Ethics & Cultural Awareness	8
Supplier Industry Structure	3,7	Extensive Product & Commodity Knowledge	9

(1=not important at all, 3=indifferent, 5=extremely important, compared to sourcing from non-low cost countries)

Table 5.9 – Competences/Capabilities

All of the competences involved are considered to be relatively more important to master (than when sourcing from non-low cost countries) by both groups of respondents. Further for all competences, the Top Performers indicated an equal or higher level of importance than the other companies. Consequently, we assume that sourcing from these regions requires generally more educated/experienced procurement professionals. Based on the average opinion of the Top Performers, the most important competences are: “Language Skills”, “Supplier Negotiation”, “Extensive Product & Commodity Knowledge”, “Handling of Customs, Currency & Incoterms” and “Integrity, Ethics & Cultural Awareness”. “The Knowledge Gap”, i.e. the skills the procurement professionals need to develop, can be identified by comparing their “Current ability to execute” the competences with the Top Performers’ average level of “Importance”. Compared to the traditional requirements for successful purchasing, procurement professionals first of all need to acquire additional knowledge in; “Local Regulation Knowledge”, “Language Skills”, “Total Cost of Ownership Analysis”, “Handling of Customs, Currency & Incoterms” and “Integrity, Ethics & Cultural Awareness” in order to be competitive.

### 5.5.3 Organisational/Relational Approaches

The top five organisational/relational approaches were identified by calculating the most indicated alternatives by the Top Performers. Note that three of these refer to the buyer supplier relationship and are described as success factors for partnership in chapter 3.3.5.

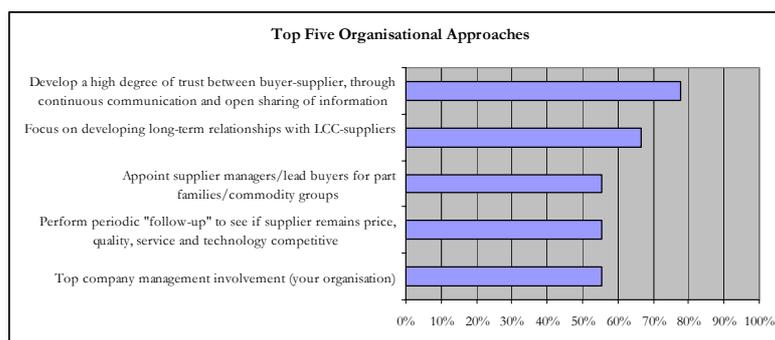


Figure 5.17 – Top five organisational approaches

According to the Top Performers it is important to develop a high degree of trust and focus on developing long-term relationships with suppliers in low cost countries. Both these approaches put the supplier relation at the centre of attention and imply that it is especially important to develop a closer relation to the supplier when sourcing from these regions.

Appointing supplier managers means that a single manager oversees one or a few products and has complete cost responsibility and authority along the entire chain, from suppliers to the final customers. This model requires a very wide range of skills for those responsible for each product since it puts all sourcing, acquisition, materials and production responsibilities onto one person. On the other hand, the supply manager can specialise and develop deep product knowledge and become an expert on sourcing issues concerning a specific product.

Even though it is important to focus on long-term relationships, it is also essential to perform periodic follow-ups to see if the supplier maintains price, quality, service and technology competitive, according to the Top Performers. On an ongoing basis, procurement professionals need to measure the performance of their suppliers and search for new potential suppliers within the industry. The objective is to enable competitive bidding between the best performing suppliers within the industry when the contract comes up for renewal. This approach is a tool to ensure that the buyer contracts the best performing supplier within the industry.

Top company management involvement can be important due to different reasons. This alternative addresses both the relation to the supplier and the shareholder. One respondent stated that; the demand on showing immediate profit for shareholders makes experimenting (i.e. sourcing from low cost countries) a risky element in the next quarterly report. A sourcing initiative from low cost countries involves various difficulties and initial investments that limit the potential savings in the beginning (please see chapter 5.3.1). Faced with the pressure from capital markets for shareholder value, the procurement professionals must ensure that the top company management support the decision to start sourcing from these regions. Another motive is that top company management involvement can also be interpreted as an act of dedication and commitment to make the partnership work, which will improve the overall relationship performance.

## **5.6 Risks & Success Factors**

### ***5.6.1 Import Risks***

Both groups have indicated the same top three import risks when sourcing from low cost countries. However there is a difference concerning the frequency of the top three alternatives. The overall outcome implies that the Top Performers consider themselves to be primarily exposed to exchange/currency risk when sourcing from low cost countries. This could be a result of foreign exchange instability and economic disorder in some of the developing economies. However, currency risk can be mitigated by buying and selling in the same currency or hedged through foreign exchange risk management. In other words, this risk should not be particularly more difficult to manage than when sourcing from non-low cost countries.

78% of the other companies indicated that they are especially exposed to the risk of non-delivery or non-performance of the supplier when sourcing from low cost countries. Further, 22% considered credit risk (i.e. the risk that supplier or other parties in the payment chain becomes insolvent) to be an issue. Both these arguments imply that the other companies are not evaluating their suppliers sufficiently enough to alleviate the risks associated with the performance and financial capacity of the supplier.

Both, risk of non-delivery/non-performance and transport risk were indicated by 44% of the Top Performers. Transport risk is the risk that goods can be stolen or damaged during transport. As in all other international purchases, this risk can be mitigated by contracting a well-reputed international carrier, or by taking out freight-insurance. As stated earlier, the risk of non-delivery/non-performance is dependant on the buyer's ability to evaluate the supplier. The company should seek trade references and evaluate their supplier properly before starting up production to protect them self from contracting a

poor supplier. Further, they can also have a secondary source of goods available to limit the effect of non-delivery/non-performance. Both transport risk and the risk of non-delivery/non-performance are associated with the performance of a third party and considered to be equally critical by the Top Performers. Consequently, by evaluating their suppliers thoroughly, top-performing buyers can alleviate the risk of non-delivery/non-performance to the same level as contracting a well-reputed carrier. Thus, sourcing from low cost countries does not necessarily involve any additional risks compared to other international purchases if it is conducted correctly.

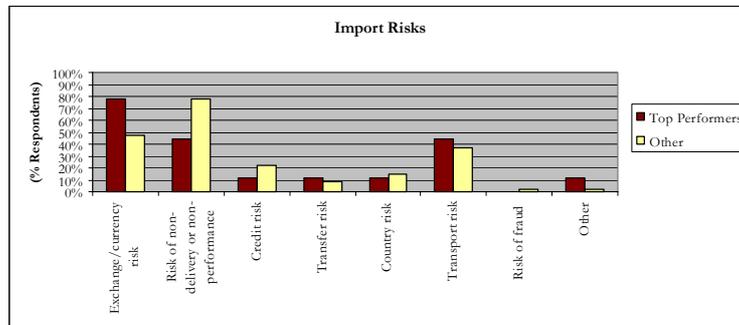


Figure 5.18 – Import risks (Top Performers/other companies)

### 5.6.2 Obstacles to Increase Sourcing from Low Cost Countries

According to the Top Performers “Lack of capabilities/resources and competences within your organisation” and “Shortage of suppliers with adequate capabilities in LCC” are the two major obstacles to increase sourcing from these regions. One explanation is that the Top Performers are sourcing more complex items that require more resources and competences within their own and the supplier’s organisation.

Since the Top Performers are more successful they have already acquired the competences needed for low cost country sourcing. Therefore the first alternative is most likely referring to the resources within the procurement organisation. At this stage we have not yet clarified how the companies proceed to overcome their obstacles. However, this problem can be alleviated by recruiting more procurement professionals with the required competences. But, due to the stagnant economy and extensive cost-cutting plans within many organisations, during the time of writing this master thesis, this alternative is out of reach.

Increasing inventory costs is a result of the increased lead-time for the companies that are not purchasing to a local production facility within the region. If the buyer can agree with the supplier to keep a stock of finished goods inventory close to the buyer’s location this problem can be mitigated and facilitate JIT-purchasing.

As we earlier pointed out “Existing supplier has moved their production to a LC-Region/LCC” is one of the top five motives for sourcing from low cost countries. This implies that the Top Performers are “following” their buyers to these regions to a larger extent than other companies. Consequently, this might be a strategy to avoid switching costs (compare with other companies’ obstacles, table 5.11) and the companies consider the present suppliers unwillingness to change locations as an obstacle to increase their sourcing from low cost countries.

Top Five Obstacles	Top Performers
1) Lack of capabilities/resources and competences within your organization	44%
1) Shortage of suppliers with adequate capabilities and competences in LCC	44%
2) Increasing inventory costs	33%
3) Being bound by contract to present suppliers	22%
3) Comfortable agreements with present suppliers	22%
3) Present suppliers' unwillingness to change locations	22%
3) Scarce communication with suppliers in LCC	22%
3) Shortage of technology that facilitates purchasing and transferring of drawings/specs (EDI, CAD, CAM) in LCC	22%
3) Sourcing from LCC does not facilitate JIT-delivery	22%

Table 5.10 – Top five obstacles (Top Performers)

Many companies have an ambition to increase sourcing from low cost countries (Top Performers 88%, other 92%). On average the Top Performers are sourcing 39% of their direct material from low cost countries while other companies are sourcing 12%. Based on the fact that both groups have the ambition to increase sourcing and the Top Performers have more experience, we assume that they also have managed to overcome some initial obstacles that other companies experience.

It is essential to consistently search for new suppliers and perform periodic follow-ups to see if the current supplier remains competitive. Otherwise, the buyer will most likely get “trapped” in comfortable agreement with the present supplier and run the risk of not contracting the best supplier within their industry. To overcome this obstacle the other companies need to take action and evaluate different potential alternatives.

Increases in additional costs of acquiring the products refer to the additional actual transport costs, e.g. administration, insurance, freight, port fees and import taxes. Freight and customs can be reduced by contracting with an excellent carrier and by agreeing with the supplier to deliver the goods in a customs-free zone. However, if it is difficult to handle the product during transport and it is burdened by high customs charges it is harder to overcome this obstacle.

Top Five Obstacles	Other
1) Comfortable agreements with present suppliers	39%
2) Lack of capabilities/resources and competences within your organization	37%
3) High switching costs	35%
4) Shortage of suppliers in LCC with adequate capabilities and competences within LCC	33%
5) Increases in additional costs of acquiring the products, which are not compensated by the reductions in purchase price	30%
5) Scarcity of suppliers in LCC that have sufficient quality systems in place regarding working procedures and environmental policies	30%
5) Sourcing from LCC does not facilitate JIT-delivery	30%

Table 5.11 – Top five obstacles (other companies)



## 6 Analytical Follow-up

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*From the previous performed analysis, a number of obscurities/interesting phenomenon have arisen. To follow-up these and in that way confirm or refute, in-depth interviews have been conducted with some of the selected Top Performers. Despite that more than one of these interviewees has expressed the same point of view, we have chosen to refer to only a single respondent. Furthermore, to protect the anonymity of the respondents we have given them fake names. These cannot in any way be connected to the actual identity of a certain respondent.*

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### 6.1 In-depth Interviews

To be able to formulate performances of success, a few in-depth interviews were conducted to follow-up and clarify some of the findings observed in the outcome and analysis of the survey. These interviews were made with five of the companies considered as Top Performers, due to their knowledge and experience of low cost country sourcing. Since the interviewees wish to be anonymous, they will be referred to as: **the Network Company, the Communication Company, the Reference Company, the High-Tech Company, and the Industrial Equipment Company**. All these names are fictitious and will in that way be impossible to connect to the actual companies. To make this even more difficult the number of direct quotations will be limited. The result of these in-depth interviews will be presented below. For the questionnaire, please see appendix E.

#### 6.1.1 Ambition

The most fundamental hypothesis for this study was “*many major Swedish manufacturing companies have the ambition to increase the share of purchases from low cost countries*”. The general opinion among the interviewees was that, given some kind of cost saving objective sourcing from low cost countries is a part of the strategy to lower costs or increase cost savings. Furthermore, under these circumstances they all have the ambition to increase their share of purchasing from low cost countries.

#### 6.1.2 Cost Reduction & Sourcing Process Time

When analysing the received data, it was observed that a higher cost reduction is obtained initially (after the start-up phase), to be decreased over the next couple of years. Furthermore, the total sourcing process time, i.e. the amount of time it takes from searching for suppliers until a company is ready for production, varies for different companies with a different degree of experience. It even seems like the amount of time increases despite an increase in experience.

All respondents, except the Communication Company, verified the first assumption. According to them, starting sourcing from low cost countries involves some initial investments, which is not necessarily product related. This leads to that the maximum benefits, in terms of cost reduction, is obtained after a few years of conducting such a strategy. Further, sourcing from low cost countries always involves a certain amount of learning time, before the parties trust and fit each other and the collaboration works properly.<sup>182</sup> It is important to work with the supplier to develop the right level of relationship and integration, and in that way evolve improvements in the process and to reduce costs further.<sup>183</sup> The supplier evaluation process is more carefully conducted the more experienced a company is, which explains the increase of total sourcing process time despite increased experience. The process of finding the optimal supplier takes time, which might involve doing business with other less suitable companies at first.<sup>184</sup> The degree of difficulty in managing the sourced item and suppliers’ involvement in product

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<sup>182</sup> The High-Tech Company (2003-05-28)

<sup>183</sup> The Industrial Equipment Company (2003-05-28)

<sup>184</sup> The Communication Company (2003-06-05)

development<sup>185</sup> also contributes to increases in total process time.<sup>186</sup> The more complex the item is, the more careful a company should be throughout the sourcing process.

### **6.1.3 Products**

A general opinion is that the items most suitable for low cost country sourcing should be labour-intensive. The main reason to why these countries are considered as low cost regions is that the salary costs are considerably lower.

The characteristics of the items sourced are, at first, that they mainly consist of more easily managed items, the so-called “low-hanging fruits”. By doing so, the buying companies can achieve know-how of how to deal with suppliers in low cost countries, and in that way develop the accurate course of conduct gradually.<sup>187</sup> After gaining such experience, the companies move towards sourcing of more complex items.

Another opinion is that more complex products need more work conducted by human resources. In that way, such products would involve even more cost reductions.<sup>188</sup>

### **6.1.4 Supplier Base**

A reduced supplier base facilitates a closer relationship with the supplier and makes the communication easier to conduct. This also gives the opportunity to consolidate purchasing procedures, and thereby concentrate larger volumes on a single supplier and optimise cost reduction.<sup>189</sup> Though, if there is more than one supplier, the risks are allocated<sup>190</sup> and competitive bidding is possible to conduct.<sup>191</sup> The structure of the supplier base is also dependent on the product, e.g. its strategic importance and supplier market complexity, sourced from the low cost country.<sup>192</sup>

### **6.1.5 Product Development**

According to the High-Tech Company, it is more complex to conduct R&D in a low cost country. This kind of work requires more frequent communication, which is more difficult to conduct with suppliers in these countries. One solution is to have non-low cost country product development suppliers, which have business units/production facilities in a low cost country.<sup>193</sup> Despite the challenges, the tendency is that R&D activities to a greater extent are conducted in these countries, in collaboration with the supplier.<sup>194</sup>

### **6.1.6 Motives**

A general opinion is that, besides to obtain lower prices and to create competition, some of the main motives for low cost country sourcing, are that already existing suppliers have moved their production to a low cost country and to facilitate local activities. These involve some kind of local activity, which could have an important effect on the success of low cost country sourcing.<sup>195</sup> The reason why an existing supplier moves its business can be either to decrease their costs or that the buying company, due to great

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<sup>185</sup> The Network Company (2003-05-28)

<sup>186</sup> The High-Tech Company (2003-05-28)

<sup>187</sup> *ibid.*

<sup>188</sup> The Network Company (2003-05-28)

<sup>189</sup> *ibid.*

<sup>190</sup> The Industrial Equipment Company (2003-05-28)

<sup>191</sup> The Reference Company (2003-05-30)

<sup>192</sup> The Communication Company (2003-06-05)

<sup>193</sup> The High-Tech Company (2003-05-28)

<sup>194</sup> The Communication Company (2003-06-05)

<sup>195</sup> The Reference Company (2003-05-30)

purchasing power, has insisted on that to happen. Such a movement by the supplier seems to be a general tendency in all the respondents' industries. If the buying company has local facilities in the low cost country, sourcing from the same decreases the lead-time involved with the item.<sup>196</sup>

To obtain flexible deliveries is also a motive considered important. If there are local activities, flexible deliveries could surely be attainable. But, if the sourced goods are supposed to be part of production in a non-low cost country, the deliveries will instead be more inflexible. Shipping sourced goods by boat is time-consuming and will take up to four or five weeks.<sup>197</sup>

A general opinion is that counter purchase agreements are not that common within the examined industries.

### **6.1.7 Sourcing Process & Procurement Procedures**

None of the in depth interviewees claimed that their company has a specific sourcing process for low cost country purchasing. The procedures are very similar regarding low cost or non-low cost country sourcing. The most challenging step in the sourcing process is to search for and evaluate the suppliers, i.e. to find a suitable business partner.<sup>198</sup> It is also important to be thorough within the quality perspective. If not, the risk of getting a cheap item with poor quality is relatively high.<sup>199</sup>

#### **Identify Potential Suppliers**

In order to identify potential suppliers within the industry and to keep updated companies need to search for suppliers continuously. Common approaches are; visiting trade fairs, talking to people working within the industry, looking at competing firms, searching the internet, getting in touch with suppliers that the companies have been working with previously, contacting embassies and trade councils.

#### **Evaluating Suppliers**

##### Gathering Information

As stated in chapter 5.4.2, the general opinion is that gathering information about suppliers is more difficult when sourcing from low cost countries. In non-low cost countries there are different sources of information ready for use, such as credit agencies, web pages with information about the suppliers and other external data sources. These channels of information do not exist in low cost countries<sup>200</sup>; "You won't find the National Statistics Office in China"<sup>201</sup>. Thus it is more difficult to get access to information. Some of the respondents stated that it is primarily financial information that is hard to gather. Common knowledge about the suppliers is relatively easy to acquire if you have access to the business network in these regions<sup>202</sup>.

Further, it has been suggested that it is necessary to be comparatively more restrictive towards the information given by the suppliers. Companies in these regions are more eager to gain business and might try to give a better picture of themselves to gain recognition and acquire the contract.<sup>203</sup>

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<sup>196</sup> The High-Tech Company (2003-05-28))

<sup>197</sup> The Communication Company (2003-06-05)

<sup>198</sup> The Industrial Equipment Company (2003-05-28)

<sup>199</sup> The Communication Company (2003-06-05)

<sup>200</sup> The Network Company (2003-05-28)

<sup>201</sup> The High-Tech Company (2003-05-28)

<sup>202</sup> The Communication Company (2003-06-05)

<sup>203</sup> The Network Company (2003-05-28)

How do companies proceed to gather information for evaluation of the suppliers? A general opinion is that it is not possible to gather information exclusively through desktop investigations. The companies meet with the potential suppliers, visit their headquarters and plants, in order to evaluate their current products and get a good perception of their business.

When visiting the suppliers, it is important to bring people with local knowledge (e.g. language, local regulations and culture) to avoid misunderstandings. This could be employees with the required competences or consultants especially hired for the assignment. The company should also try to involve all the key players, i.e. top management and other people within their own and the suppliers' organisation that possess critical competences. It is essential to ensure that these people stay within the suppliers' organisation during the contracted period, because it is harder to find people with leading edge competences in low cost countries.<sup>204</sup>

All these activities can be facilitated by establishing local presence in order to avoid expensive and time-consuming travelling. Further, you get a better understanding of the market place and access to the local industry network<sup>205</sup>. The Reference Company has not experienced any additional difficulties in gathering information. This, since they have established an IPO Network at key supplier locations where 90-95% of the staff members are recruited locally. By establishing local presence with native employees they gain knowledge about the suppliers' market, language skills and understanding of the local culture.<sup>206</sup>

However, this does not necessarily imply that companies need to establish an IPO Network to obtain the benefits from local presence. Many of the respondents have other kinds of business activities such as logistics offices, factories and sales offices located in low cost countries.

#### Total Cost Analysis

Given the assumption that companies have gathered the required information; the general opinion is that it is not more difficult to conduct total cost analysis when sourcing from low cost countries, compared to sourcing from any other country. "Presuming you managed to acquire the required information it is quite simple. Nevertheless it requires experience of international purchasing."<sup>207</sup>

However, there are some concerns regarding "green supply management" and labour conditions. As a result, companies have to inspect the suppliers in order to qualify them for certifications.

### **Negotiating With and Selecting Final Suppliers**

#### Verifying the Suppliers' True Capabilities and Selecting Suppliers

According to chapter 5.4.3 it is more difficult to verify the suppliers' true capabilities and selecting suppliers when sourcing from low cost countries. To ensure that the supplier meets the requirements and to avoid negative surprises, it is especially important to perform sample production and evaluate the quality of the products thoroughly<sup>208</sup>. However, the overall opinion is that this is not an object of consideration. Presuming that the suppliers have been evaluated properly, their performance is not often a cause for a negative surprise<sup>209</sup>. Selecting the wrong supplier is a mistake that many companies initially experience, resulting from the lack of know-how within the organisation. More experienced companies take more time to select their suppliers in order to contract the most favourable one (please see table 5.6).<sup>210</sup>

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<sup>204</sup> The High-Tech Company (2003-05-28)

<sup>205</sup> The Communication Company (2003-06-05)

<sup>206</sup> The Reference Company (2003-05-30)

<sup>207</sup> The Industrial Equipment Company (2003-05-28)

<sup>208</sup> The Communication Company (2003-06-05)

<sup>209</sup> The Industrial Equipment Company (2003-05-28)

<sup>210</sup> The Reference Company (2003-05-30)

### Negotiating

Despite challenges such as distance, time, language and cultural differences, the common opinion is that it is not more difficult to negotiate with suppliers in low cost countries than in any other country. International companies are used to negotiating with foreign suppliers<sup>211</sup>. Negotiating can be facilitated by engaging consultants or own personnel with local knowledge, adequate language skills and understanding of the local culture<sup>212</sup>.

The majority of the respondents believe that local presence makes it easier to negotiate. As mentioned earlier, local presence automatically alleviates problems concerning time differences and distances. Further, by employing native- or personnel with the required competences, difficulties such as language and cultural differences are facilitated.

However, it is possible to negotiate successfully without the means of local presence or personnel possessing local knowledge. This usually implies that the supplier knows English and that the supporting documents are formulated precisely. Suppliers in low cost countries tend to do exactly as it is written in the description and therefore it is crucial to formulate them accurately.<sup>213</sup>

### **Designing Contract and Finalising Agreements**

#### Agree on Terms and Conditions

In chapter 5.4.4 it was confirmed that it is comparatively easier to agree on contract terms and conditions regarding business processes with suppliers from low cost countries. The general belief is that there are three factors characterising the suppliers that facilitates this procedure. Suppliers in low cost countries are:

- More willing to do business
- More flexible
- More willing to solve problems as they arise

Further, the suppliers in low cost countries are not used to working with the same degree of formal documents regarding details in working procedures and business processes. Since they are uncomfortable with the written work, they might also be concerned that buyers are using complex documents as a mean to drive down price. Consequently, it is not necessary to design complex contracts to avoid disagreements regarding details in business processes. These problems can be solved as they arise.

Since the suppliers in low cost countries are more flexible and willing to do business, it is easier to get them to sign a standard contract for international purchases. Most companies are therefore working with standard documents for international purchases when sourcing from low cost countries. However, some of them have specialised further and developed supporting documents for specific regions.

#### Taking Legal Aspects and Requirements into Account

There are always difficulties involved in taking legal aspects and requirements into account when sourcing internationally. But purchasing from low cost countries does not necessarily imply any additional difficulties. On the contrary, companies operating in Western countries often have to adapt to more rules and regulations than companies in low cost countries<sup>214</sup>. Again, establishing local presence and employing native personnel can mitigate these problems.

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<sup>211</sup> The Industrial Equipment Company (2003-05-28)

<sup>212</sup> The High-Tech Company (2003-05-28)

<sup>213</sup> The Network Company (2003-05-28)

<sup>214</sup> The Network Company (2003-05-28)

Handling of customs currency & Incoterms is something that procurement professionals learn as they get more experience. Another approach is to mitigate the problem by contracting the supplier to handle this part. E.g. letting the supplier deliver to Hong Kong can alleviate difficulties concerning customs in China<sup>215</sup>.

## **Starting Up Production**

### Performance Measurements

In general, the buyers measure the performance of their suppliers using the same performance measurements as for suppliers in other countries. I.e. by delivery accuracy, quality, price, lead-time and the company code of conduct (policies regarding labour conditions and environmental issues)<sup>216</sup>.

### Supplier Development

The companies perform different degrees and methods of supplier development, depending on what type of items are being purchased. In order to succeed it is important to develop a high degree of trust by communicating with the supplier<sup>217</sup>.

A common opinion is that it takes longer time to develop the supplier if the company are purchasing a more complex item (compare with chapter 5.4.8). This since they do not have the same experience as suppliers in non-low cost countries<sup>218</sup>. However, the suppliers in low cost countries are fast learning/good at copying and are willing to learn in order to gain more business<sup>219</sup>.

Some respondents point out the benefits of second mover advantage. If the suppliers already have been producing similar products it is not difficult to start up production<sup>220</sup>. Previous experience of doing business with other non-low cost country companies may even function as a selection criterion when selecting suppliers<sup>221</sup>.

## **The Purchasing Process**

As stated in chapter 5.4.6 the companies that are purchasing their items to production facilities located in low cost countries do not experience any difficulties in the purchasing process. However, it becomes more difficult if companies purchase complex items needing frequent deliveries to plants located in another country<sup>222</sup>.

The companies are mainly working with telephone, fax, paper documents and e-mail. E-mail is a good tool, which alleviates problems such as time-differences<sup>223</sup>. Other communication tools such as EDI, are in progress but is not as widespread in these regions<sup>224</sup>. In general the technology exists but unfortunately there are not many that have the knowledge to handle it<sup>225</sup>.

The suppliers are willing to align their processes and systems with the buyer but it takes longer time for them to understand the procedures<sup>226</sup>. However they are dedicated to their task and there are some cases where the supplier provides finished goods inventory free of charge.

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<sup>215</sup> The Communication Company (2003-06-05)

<sup>216</sup> The Reference Company (2003-05-30)

<sup>217</sup> The Network Company (2003-05-28)

<sup>218</sup> The Reference Company (2003-05-30)

<sup>219</sup> The High-Tech Company (2003-05-28)

<sup>220</sup> The Communication Company (2003-06-05)

<sup>221</sup> The Industrial Equipment Company (2003-05-28)

<sup>222</sup> The Industrial Equipment Company (2003-05-28)

<sup>223</sup> The Communication Company (2003-06-05)

<sup>224</sup> The Industrial Equipment Company (2003-05-28)

<sup>225</sup> The High-Tech Company (2003-05-28)

<sup>226</sup> The Network Company (2003-05-28)

## Managing the Supplier Relationship

A common belief is that communicating with the supplier is vital when managing the supplier relationship. Continuous contact by telephone, fax, e-mail, corporate newspapers and visiting the supplier, are means to develop a closer relationship with the supplier.

Although it is important to focus on developing a close and long term relationship with the supplier, some products require a different approach. Depending on the industry and the life cycle of the product, long-term relationships might not be appropriate<sup>227</sup>. E.g. simple products do not require the same level of integration, since there are many possible sources for items characterised by a low supply market complexity<sup>228</sup>.

In general, companies with local presence believe that; communication, problems concerning cultural differences and conflicts are facilitated by the fact that they have personnel located in low cost countries. Consequently, this will help them to improve their overall relationship performance.

Another approach is to evaluate the relationship performance. Every third year the Reference Company conducts an anonymous survey investigation to evaluate the relationship with their suppliers. Thereafter in-depth interviews are performed by a third-party to penetrate the problems further. The result provides a basis for decision-making concerning procedures and improvements.<sup>229</sup>

### 6.1.8 Different Approaches to Purchasing

After interviewing the different companies it was quite evident that many respondents performing the survey have misinterpreted the alternative “Purchasing on a direct basis from a local/domestic purchasing office”. Buyers may identify, evaluate and manage their suppliers by using personnel located in low cost countries while the decisions and orders are called from Sweden. Consequently, due to the poor formulation of the alternative they indicated the wrong answer.

Further, the approach can change over the life cycle of the product. Initially buyers may purchase the item through a corporate purchasing office and thereafter the responsibility is transferred to procurement professionals at plants on different locations.<sup>230</sup> However, the overall opinion is that local presence facilitates the activities involved in identifying, evaluating and managing the suppliers in low cost countries.

### 6.1.9 Competences

The companies have different approaches to secure/develop their procurement competences. The Reference Company have on-the-job training for the professional development of their procurement staff. This training includes elements to develop technical competence and knowledge about logistics/manufacturing processes etc. However, it does not involve the specific elements needed for low cost country sourcing. Local knowledge is acquired by recruiting local personnel.<sup>231</sup>

The other companies declare that there is no formal training program for the procurement professionals. Instead skills are developed through experience. If specific competences are needed, they recruit or hire professionals with the required profile. Due to poor economic growth, resources are limited within these

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<sup>227</sup> The High-Tech Company (2003-05-28)

<sup>228</sup> The Industrial Equipment Company (2003-05-28)

<sup>229</sup> The Reference Company (2003-05-30)

<sup>230</sup> The High-Tech Company (2003-05-28)

<sup>231</sup> The Reference Company (2003-05-30)

organisations. Otherwise, the High-Tech Company claims that they would like to have training adapted to low cost country sourcing<sup>232</sup>.

### **6.1.10 Organisational Approaches**

Chapter 5.5.3 clarified that it is important to develop a high degree of trust and focus on developing long-term relationships with suppliers in low cost countries. According to the Communication Company, both these alternatives compose a European approach suitable for the Asian market<sup>233</sup>.

However, it is still important to perform periodic follow-ups to see if the supplier ensures that price, quality, service and technology remain competitive. Buying companies must continuously search for new opportunities and evaluate their current position in order to stay competitive. Every time a contract comes up for renewal the current supplier should be exposed to competitive bidding from two to three other alternatives.<sup>234</sup> Over time low cost countries develop into non-low cost countries and the current supplier may no longer provide the best solution<sup>235</sup>.

### **6.1.11 Import Risks**

#### **Currency/Exchange Risk**

When sourcing internationally companies are consistently exposed to currency risk. However, the risk is not particularly associated with purchasing from low cost countries and the companies have various procedures to manage it. Depending on the size and resources of the company there are different means available to mitigate the risk. Larger companies have larger resources. The Reference Company have employees working full time dealing with foreign exchange<sup>236</sup>. It is also possible to transfer the risk to the supplier by negotiation or exploiting purchasing power<sup>237</sup>. Another approach is to buy and sell items in the same currency.<sup>238</sup>

#### **Risk of Non-delivery or Non-performance**

As stated in chapter 5.6.1, the risk of non-delivery/non-performance is dependant on the buyer's ability to evaluate the supplier. There are not many cases of non-deliveries, however some problems concerning delays and quality may occur. It is up to the buyer to make sure that this does not constitute a problem.<sup>239</sup>

Another approach is to mitigate the risk of non-delivery/non-performance by establishing contact with low cost country-suppliers through development companies/suppliers from the domestic market.<sup>240</sup>

#### **Transport Risk**

The overall opinion is that this risk is not particularly associated with purchasing from these regions and is best managed by insurances and delivery contracts with global carriers.

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<sup>232</sup> The High-Tech Company (2003-05-28)

<sup>233</sup> The Communication Company (2003-06-05)

<sup>234</sup> The Reference Company (2003-05-30)

<sup>235</sup> The Network Company (2003-05-28)

<sup>236</sup> The Reference Company (2003-05-30)

<sup>237</sup> The High-Tech Company (2003-05-28)

<sup>238</sup> The Industrial Equipment Company (2003-05-28)

<sup>239</sup> The Reference Company (2003-05-30)

<sup>240</sup> The High-Tech Company (2003-05-28)

### **6.1.12 Obstacles to Increase Sourcing from Low Cost Countries**

#### **Shortage of Suppliers with the Adequate Capabilities**

Key players with leading edge knowledge are harder to find in low cost countries. Therefore, the level of competence varies more between different suppliers in these regions compared to other countries.<sup>241</sup>

Companies that are sourcing more complex items, which require more resources/competences, will consequently have some problems in finding an appropriate supplier. However the average level of competence is increasing fast in these regions, as they are learning fast from experience.<sup>242</sup>

A common mistake, when starting to source from these regions, is that buyers try to find the optimal supplier immediately. Initially it is better to concentrate on finding a good supplier in order to get into the local business network. As companies develop contacts and gain experience, they can start sourcing more complex items and focusing on finding the optimal supplier.<sup>243</sup>

#### **Lack of Capabilities/Resources and Competences within Your Organisation**

Sourcing from low cost countries is a time consuming process. Further, to know how to source from these regions is a competence in itself and therefore companies do not have the required resources<sup>244</sup>.

Due to poor economic growth, resources are limited within many companies. Even though the buyers may have the knowledge, they do not have enough procurement professionals within their organisation to be able to identify and evaluate new suppliers.<sup>245</sup>

Otherwise, it is a general opinion that these capabilities/resources can be acquired by recruiting/engaging personnel with the required competences. Knowledge about logistics can be obtained quite fast, but it is almost impossible to learn a new language in a short period of time<sup>246</sup>.

An interesting opinion on this matter is that; some companies located in low cost countries, prefer employing local personnel to Swedish personnel with the adequate language skills, due to two reasons. It is more expensive to have Swedish people working in low cost countries and in general they do not possess the same level of local knowledge<sup>247</sup>. Further, by employing a native workforce the risk of being “cheated on”, which might be “a way of life” in some of these countries, is diminished.

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<sup>241</sup> The Reference Company (2003-05-30)

<sup>242</sup> The High-Tech Company (2003-05-28)

<sup>243</sup> The Communication Company (2003-06-05)

<sup>244</sup> The Communication Company (2003-06-05)

<sup>245</sup> The High-Tech Company (2003-05-28)

<sup>246</sup> The Industrial Equipment Company (2003-05-28)

<sup>247</sup> The Reference Company (2003-05-30)



## 7 Conclusions & Recommendations

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*The final chapter of this master thesis aims to extract and summarise findings from the analysis and the analytical follow-up. These should be used as recommendations for companies that intend to source direct material from low cost countries. Note that the following is not to be considered as best practises in any way, but as factors that may facilitate the success of such a strategy. Finally, the theoretical contribution and the limitations of our work are presented, followed by suggestions for further research within the field of subject.*

---

The following deduction aims to fulfil the purpose formulated for this study. The base hypothesis “*many major Swedish manufacturing companies have the ambition to increase the share of purchases from low cost countries*” turned out to be true, as 91% of the participating companies intend to increase their direct procurement spend from these regions. However, the purpose of this study is to provide recommendations for companies on how to achieve these goals. Therefore, the research questions from the introductory chapter are repeated, in order to facilitate the signification of the drawn conclusions for the reader;

- What type of resources, capabilities and knowledge is needed within the procurement organisation?
- What are the main challenges, key issues and success factors?
- What are the procedures and how time-consuming is the sourcing process?
- Which regions and what type of product categories are manufacturing companies sourcing from low cost countries and why?

We have chosen to divide our key findings into two subgroups – **General Factors of Success** and **Critical Activities in the Low Cost Country Procurement Procedure** – presented as general success factors and activities of importance in a generic procurement process. The performed work has been relatively extensive to its character and not all of the conclusions are presented in this final chapter. For further findings and reasoning please see chapters four, five, six as well as appendix A and B for the descriptive part of the survey.

The following conclusions should be interpreted and examined from the specific company’s point of view. The recommendations should be adapted to suit each individual company, considering size of business, internal resources, capacity, type of item being purchased, ambition and objectives. I.e. the individual company should adjust these recommendations considering their own situation and prerequisites when sourcing from low cost countries.

### 7.1 General Factors of Success

Given the ambition to increase the share of purchases from low cost countries, the following conclusions/recommendations should be considered.

- **Specialisation** – specialise procurement professionals on low cost country sourcing to develop experts within the area. Global sourcing requires procurement professionals to have a thorough understanding of the economic and business environment of the foreign markets. By working exclusively with low cost country sourcing the procurement professionals will develop deep product, industry and supplier expertise. Further, these procurement professionals will learn how to deal with special features characterising these countries, such as language skills, cultural awareness, and political condition.
- **Experience** – success requires experience. The time-factor is crucial. Experienced procurement professionals have had more time to develop the adequate competencies needed for successful sourcing from low cost countries. Learning about the local business network and acquiring “local

knowledge” is an expensive, time-consuming and complex process. The buying company has to be patient to develop the competences through experience and educate their procurement professionals by means of a formal training program adapted to low cost country sourcing. Another alternative is to recruit or hire professionals with the required profile/experience.. Further, it is time consuming to develop the right level of trust, communication, relationship and integration with the supplier.

- **Products** – source labour-intensive products from low cost countries. The products most suitable for low cost country sourcing should be labour-intensive since the salary costs are considerably lower in these regions. As a consequence, the lower cost of salary will provide a lower purchase price that will compensate for additional costs of acquiring the products. By starting off with low-hanging fruits and moving towards items that are more difficult to manage, companies can acquire “know-how”, develop the accurate course of conduct and the supplier gradually. After gaining the right level of experience, more complex managed items can be purchased from low cost countries. Different products require different levels of integration and relationship. The more complex a product is the closer the relationship should be.
- **Level of relationship/integration** – aim to develop a deeper level of relationship with suppliers in low cost countries. Relationships should also be of a more long-term character, than with suppliers in non-low cost countries. The choice of relationship is dependent on the lifecycle time and the type of item that is being purchased. The more strategically important and complex a product is the higher the level of integration should be. Consider the strategic fit between buyer and supplier as well as the joint benefits and the economic effects of the relationship. On an ongoing basis, it is crucial to measure the relationship performance and search for new suppliers. The objective is to enable competitive bidding between the best performing suppliers within the industry when the contract expires.
- **Supplier base** – aim to have as few suppliers as possible, preferably one or two. Fewer suppliers facilitate integration, collaboration, communication, development of trust and enables consolidation of volumes. The buying company should actively search for and evaluate new possible suppliers, as well as conducting periodic follow-ups and perform competitive bidding when a contract comes up for renewal.
- **Joint R&D** – involve the supplier in the product development process, in order to reduce lead-time and product costs. Joint R&D activities provide an opportunity to utilise the suppliers’ skills, resources and capabilities and increases the efficiency of the R&D process. These activities demand a closer buyer/supplier relationship, as well as a higher degree of integration and trust.
- **Competences/Capabilities** – acquire specific competences. It is recognised that having the right set of skills is a success factor for long-term procurement performance. All listed competences in chapter 4.2.5 are more crucial to secure when sourcing from these countries. It is important that the new valued competences are documented and new approaches to learning are set out to sustain procurement performance. The competences can be developed through experience and education of the procurement professionals by means of a formal training program adapted to low cost country sourcing. Another alternative is to recruit or hire professionals with the required profile. Further it is important to ensure that the key players stay within the suppliers’ organisation throughout the contracted period.
- **Local presence** – facilitates sourcing from low cost countries considerably. If local presence is possible to engage, required competences and procedures are easier to secure. Dimensions in cross-national relationships such as distance, communication, language and cultural differences can, by definition, be mitigated by establishing local presence and engaging local personnel. Further, the majority of the sub-activities involved in the procurement process, from identifying potential suppliers to managing the supplier relationship, are facilitated by local presence. If the company is sourcing enough items to cover the costs and has the resources to support local

presence, it is unquestionably a recommended practice to control and improve the overall performance.

- **Communication** – develop a high degree of trust through continuous communication and open sharing of information. Many of the mentioned recommendations are facilitated by more frequent communication with the suppliers in low cost countries.
- **Trust** – a high degree of trust, between buyer and supplier, is crucial for success when sourcing from low cost countries. Through communication and integration, the right degree of trust can be evolved. It is important to have long-term objectives and relationships, since developing trust is a long-term procedure.

## 7.2 Critical Activities in the Low Cost Country Procurement Process

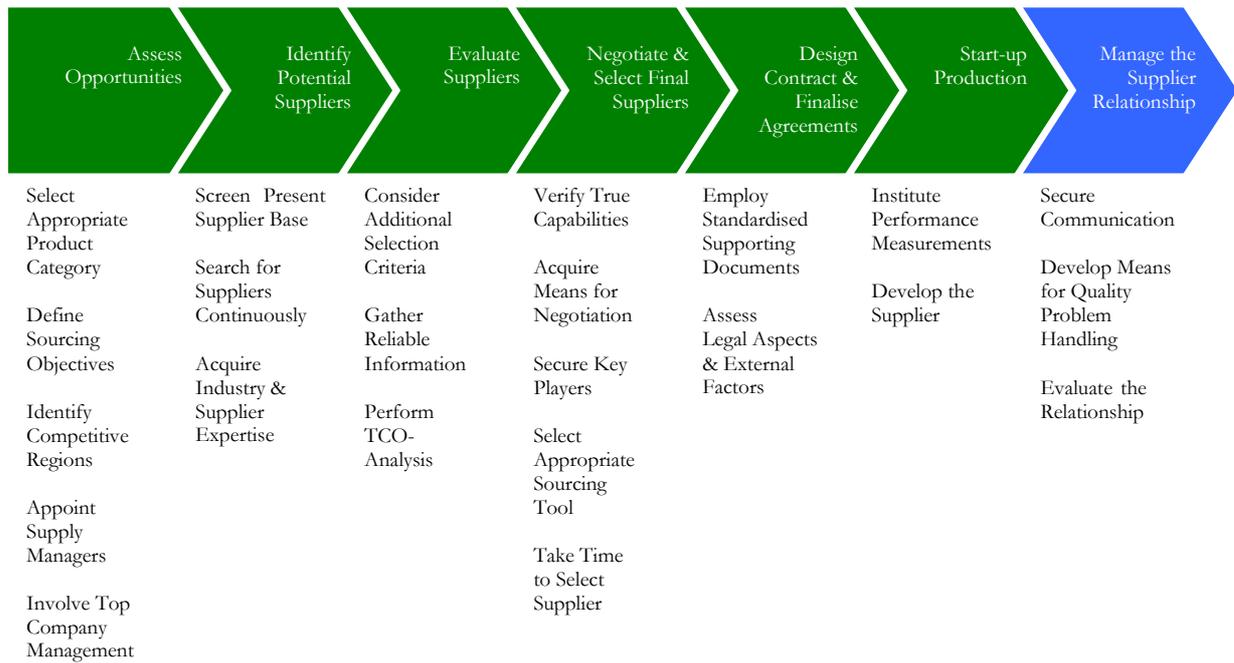


Figure 7.1 – Critical activities for successful low cost country sourcing

### 7.2.1 Assess Opportunities

*Select Appropriate Product Category* – Companies need to consider their prerequisites when selecting an appropriate product category. I.e. clarify what resources and capabilities they have, to source a specific item successfully.

*Define Sourcing Objective* - The sourcing objective and type of product form the criteria for suitable means and procedures when sourcing from low cost countries. Companies need to consider what means they have or need to develop to reach the objective.

*Identify Competitive Regions* – In most industries, sustained success demands a national environment to support the creation of competitive advantage. Depending on product category and objective,

companies need to identify and select an appropriate market, and consider what resources and competences they have to secure long term benefits.

*Appoint Supply Manager* – Companies should appoint a single manager that has complete cost responsibility and authority along the entire chain, from suppliers to the final customers.

*Involve Top Company Management* – Due to the pressure from capital markets for shareholder value and since sourcing from low cost countries is a risky element, companies must ensure that the top company management support the decision. It can also be interpreted as an act of dedication and commitment to make the partnership work towards the suppliers.

### **7.2.2 Identify Potential Suppliers**

*Screen Present Supplier Base* – Companies should first confirm whether they have suppliers within their supplier base that have/are willing to move their production to low cost countries. Working with a familiar supplier has several benefits e.g.; alleviates switching costs, risk of non-delivery/non-performance and facilitates supplier development.

*Search for Suppliers Continuously* – To identify suppliers within their industry, reduce process time and keep updated, companies need to keep searching for potential suppliers continuously. Common approaches are; visiting trade fairs, searching the internet, talking to people working within the industry, looking at competing firms, contacting embassies and trade councils.

*Acquire Industry & Supplier Expertise* – To be able to identify the optimal supplier, companies need to understand industry trends and the impact on supplier economics and prices. Low cost country sourcing requires the procurement professionals to acquire deep product, industry and supplier expertise. The level of expertise can be achieved/developed by specialization, experience, establishing local presence or employing/hiring people with the required competences.

### **7.2.3 Evaluate Suppliers**

*Consider Additional Selection Criteria* – Companies need to consider additional factors that affect the overall performance when sourcing from low cost countries.

- Second mover advantage – does the supplier have previous experience of working with similar products/Western companies?
- Local presence – does the company have any kind of local activities that will be supported or can facilitate managing the supplier?
- Green supply management – does the supplier’s policies regarding working procedures, environmental issues and labour conditions align with the company’s code of conduct?

*Gather Reliable Information* – To enable a correct evaluation of the potential suppliers and mitigate the risk of non-delivery/non-performance, the company needs to access and gather reliable information.

- Seek trade references – Contact competitors and other people with previous experience of working with the supplier.
- Review other external data sources – Gather information from credit agencies, local banks and open ratings.
- Visit the supplier – Meet with the potential suppliers, visit their headquarters and plants to provide a good conception about their business. Engage people with “local knowledge” to avoid misunderstandings.
- Involve/Identify key players – Identify and involve people, within the supplier’s and their own organisation, possessing critical competences at an early stage.

*Perform Total Cost of Ownership Analysis* – Companies should perform a thorough Total Cost of Ownership analysis to identify the best suppliers/alternatives within their industry and avoid negative surprises, e.g. increases in additional costs of acquiring the items.

#### **7.2.4 Negotiate & Select Final Suppliers**

*Verify True Capabilities* – To ensure that the supplier meets the requirements, it is vital to perform sample production and evaluate the quality of the products.

*Acquire Means for Negotiation* – To avoid misunderstandings and facilitate negotiations companies should engage people with “local knowledge” or develop precisely formulated supporting documents.

*Secure Key Players* – Since it is harder to find people with leading edge competences in low cost countries, it is critical to ensure that the key players stay within the supplier’s organisation throughout the contracted period.

*Select Appropriate Sourcing Tool* – Since suppliers in low cost countries quote aggressively for business one of the fundamentals for a successful reverse auction is fulfilled.

*Take Time to Select Supplier* – Selecting the wrong supplier is a mistake that many companies initially experience, resulting from the lack of know-how within the organisation. More experienced companies take more time to select their suppliers in order to contract the most favourable one.

#### **7.2.5 Design Contract & Finalise Agreements**

*Employ Standardised Supporting Documents* – In general suppliers in low cost countries are uncomfortable with written work, more flexible and willing to do business. Consequently, it is not necessary to design complex contracts to avoid disagreements regarding details in business processes, these problems can be solved as they arise. Therefore companies should develop standardised supporting documents to increase process efficiency.

*Assess Legal Aspects & External Factors* – To provide an adequate level of risk management for the whole supply chain, it is necessary to acquire knowledge of how to handle legal aspects, Incoterms, currency and customs. Companies need to consider working procedures on how to manage these issues to avoid additional costs beyond purchase price. An adequate level of expertise can be achieved through specialisation, experience, establishing local presence or employing/hiring people with the required competences.

#### **7.2.6 Start-up Production**

*Institute Performance Measurements* – Companies need to secure that the supplier perceives the performance measurements as an opportunity to develop a better understanding and a starting point on how to improve performance. Not as a punishment/reward tool in buyer-supplier relationships. This enables companies to identify and correct problems with products and delivery, to enforce contract compliance and collect information needed for renegotiation when the contract expires.

*Develop the Supplier* – By selecting a small number of suppliers, procurement professionals can work closely in a buyer-supplier relationship and help their suppliers to perform operational improvements. To maintain cost reductions over time, it is essential to work with the suppliers to identify process changes that cut production costs, improve quality and the overall performance. Since it takes longer time to develop suppliers of more complex products, companies should consider the benefits of second mover advantage when sourcing items characterised by a high supply market complexity.

### **7.2.7 The Purchasing Process & Managing the Supplier Relationship**

*Secure Communication* – New communication-technology has made transactions cheaper, faster and diminished the risk of misunderstandings. In general, the technology exists but unfortunately there are not many that have the knowledge to handle it in these regions. Further, communicating with the supplier is important to develop the relationship and a high degree of trust. Therefore, it is critical to secure and agree on communication channels/procedures to alleviate the risk of misunderstandings and promote the relationship with the supplier.

*Develop Means for Quality Problem Handling* – Companies need to develop the means to monitor production, perform inspection of the goods prior to shipment, resolve technical and quality issues as they occur, and assure that all products are being made according to specifications. Efficient means are local presence or ISO certifications for working procedures.

*Evaluate the Relationship* – Companies have to evaluate the relationship performance on a regular basis. The result should provide a basis for decision-making concerning procedures and improvements of the relationship with the supplier.

## **7.3 Theoretical Contribution**

The theoretical contribution of this study is relatively extensive since the amount of existing academic work, within the area of strategic sourcing from low cost countries, is limited. Through our investigation we have identified success factors and critical activities, when conducting strategic sourcing from low cost countries, which can be applied to improve existing best practise methodologies. Further, we have concluded that sourcing from low cost countries is a strategy of increasing importance to reduce costs, for manufacturing companies operating in Sweden.

## **7.4 Limitations**

The limitations of the conducted study are first and foremost, that it “only” comprises sourcing of direct material within certain industries, i.e. the sample population. This does not necessarily mean that it is not applicable on sourcing of/in different goods and different industries. Though, this might involve other important factors to consider, which have not been included in this master thesis.

## **7.5 Future Research**

Since the amount of academic as well as empirical work within the area of strategic sourcing from low cost countries is limited, the possibilities to conduct valuable research are many. Future research could for example be conducted on other types of industries than those included in this study. By doing so, similarities and differences can be elucidated. Furthermore, such research could embrace other types of goods. Since the conducted study is relatively extensive to its character, it could also be of great interest to carry out more detailed and specific examinations regarding certain identified areas of importance for low cost country sourcing. Nevertheless, all further research will be valuable and contributing in one way or another, since the area of strategic sourcing from low cost countries is yet relatively unexplored. We sincerely hope that the conducted study will somehow contribute to and facilitate any future research.

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## Appendix A – Further Empirical Findings

### Specialisation

To examine the level of specialisation regarding low cost country sourcing the respondents were asked to indicate the number of professionals/buyers within the procurement department that works exclusively with these tasks (in number of full time equivalent). 22% of the respondents were working in procurement departments that are exclusively engaged with low cost country sourcing, as shown in figure A.1.

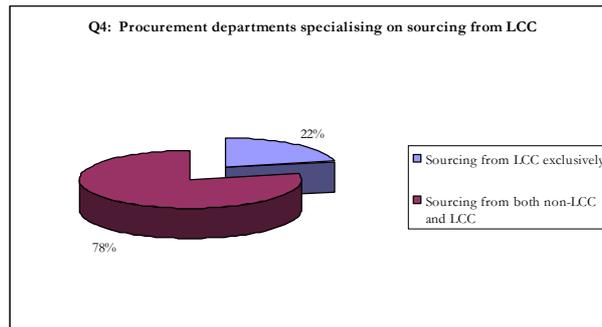


Figure A.1 – Low cost country sourcing exclusively

### Ambition

The number of respondents that have the ambition to increase their direct procurement spend in different low cost regions is distributed as follows. As the figure displays, 58% of the 55 respondents indicated that they were willing to increase their direct procurement spend in China, 53% in Eastern Europe and 27% in South-East Asia. The region, which had the lowest percentage of answers, was Africa, in which only 4% of the respondents wanted to increase the share of procurement spend.

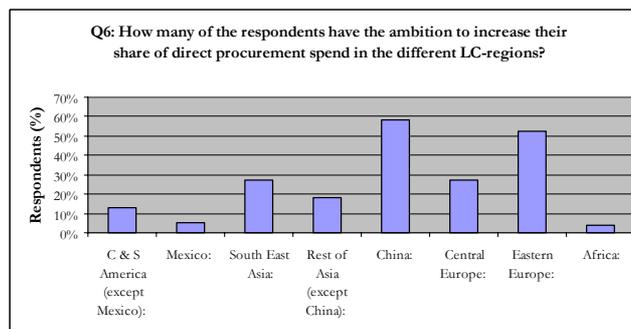


Figure A.2 – Ambition to increase direct procurement spend divided on low cost regions

### Product Categories

The objective of the following section is to identify what product categories the respondents purchase from low cost countries. In those cases where the word product is used, it refers to one of the four product categories.

To map what type of products that are being purchased from low cost countries, the respondents were asked to choose among four different categories – raw materials, simple parts/components/subassemblies, complex and innovative parts/modules/systems, and finished

products. In a number of different “product category-specific” questions, the participants of this survey were asked to take a stand concerning a variety of aspects.

The first question deals with the type of product categories the companies are purchasing today and what they will be purchasing in 2006 from low cost countries. The results show that the majority of the respondents purchase primarily simple parts/components/subassemblies from low cost countries. This category is also the one that will be sourced most in 2006. However, the outcome also shows that the other product categories are purchased to a large extent from low cost countries.

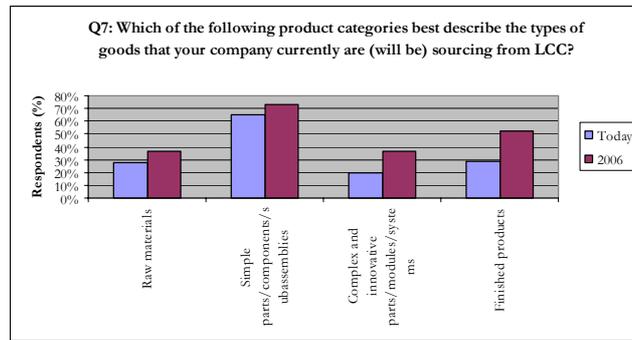


Figure A.3 – Product categories sourced today/in 2006

The product categories were also categorised into four different characteristics (please see chapter 3.4 for an explanation of these) – Strategic, Bottleneck, Leverage and Non-critical products. This distribution is illustrated in figure A.4. The range of product characteristics varies greatly, and it is, at a first glimpse, not possible to detect any specific pattern of which type of products that are being sourced from low cost countries.

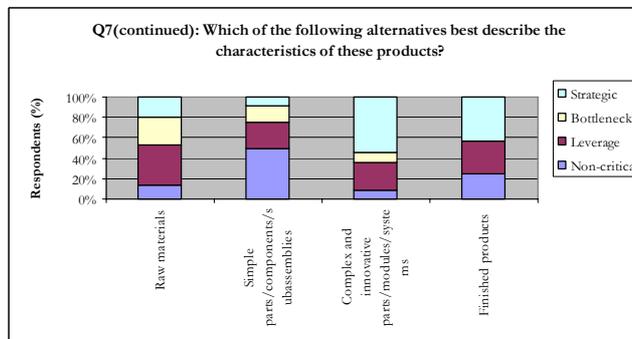


Figure A.4 – Product characteristic

Another matter is the level of relationship with the suppliers in low cost countries. Here, the respondents had the opportunity to choose among four different types of relationships, regarding a specific product category. The types of collaboration were classified as fully integrated, collaborative, cooperative or independent to its nature. Even in this aspect the responses varied significantly, as can be seen in figure A.5. Note that the share of a fully integrated relationship increases in relation to the completion of the product, while the share of an independent relationship decreases.

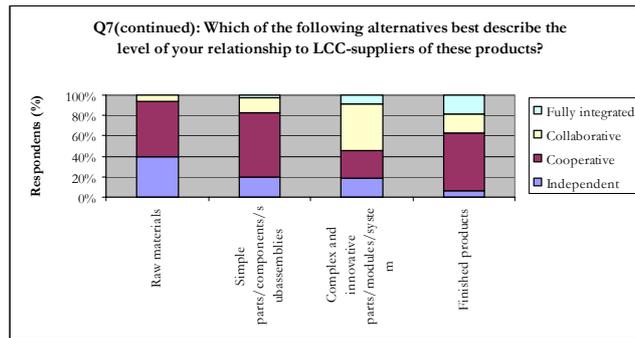


Figure A.5 – Level of relationship

Another interesting issue is how the respondents choose to manage their supplier base for the different type of products. From the theoretical framework three different sourcing policies can be distinguished, i.e. multi, single and sole sourcing. The alternative policies provided in the questionnaire, describe the number of suppliers utilized and where they are situated. In this way, the alternatives also give an indication of the amount of trust the buyer puts into the relationship with the supplier. As the level of completion of the product increases, “Multi source from LCC with at least a second source in a non-LCC” decreases and a larger fraction of the respondents start using one supplier. As a result, single and sole sourcing constitutes 62.5% of the “finished product”-cases. Otherwise the supplier base varies greatly, although single sourcing is the most used sourcing policy representing 36% of the total cases.

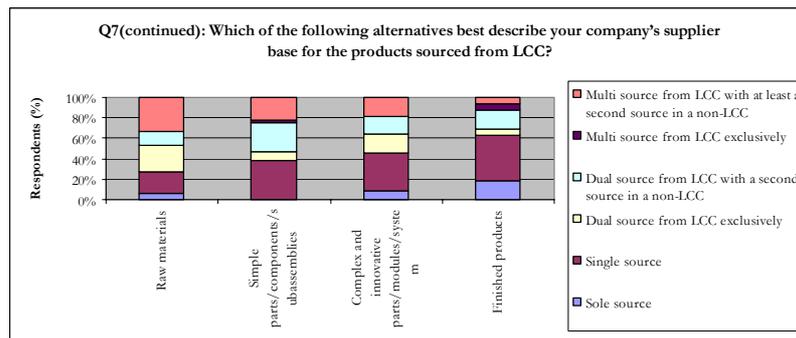


Figure A.6 – Supplier base

Within the area of product categories, the respondents were also asked to indicate to which production facilities/business units they are sourcing these products, i.e. the direction of the purchased direct material. In 45% of the cases the respondents stated that they purchase products “To both our own non-LCC and LCC/LC-Region production facilities/business units”. Further, 40% of the indicated answers were “To our own non-LCC production facilities/business units” while only 15% of the purchased product categories are directed to business units within the low cost country/region.

The received information can also be illustrated based on the four different product categories. Figure A.7 illustrates that the more complete the purchased product is the more products are being sourced to different destinations. This observation can be explained by the fact that the respondents are using one supplier to a larger extent as the level of completion increase. Note that raw material and complex and innovative parts/modules/systems are being sourced locally in low cost countries to the largest extent.

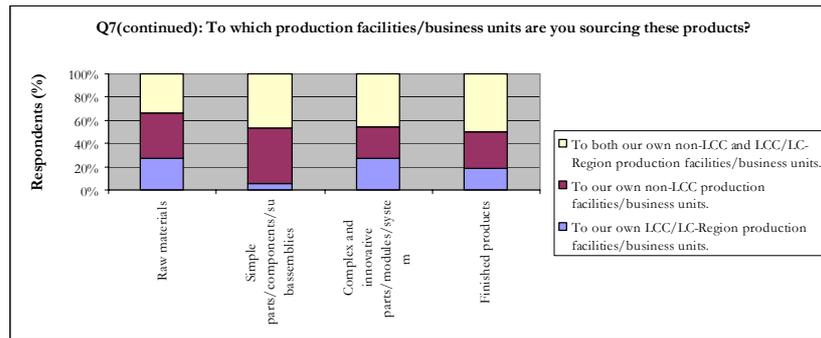


Figure A.7 – Sourcing direction divided on product categories

To examine how the opportunity on joint R&D activities is affected by the fact that the supplier is located in a low cost country, the respondents were first asked if they have the principles and instruments to support such activities. Figure A.8 reveals that the share of respondents that have implemented the necessities for product development activities with the supplier, increases in relation to the completion of the item that is being purchased.

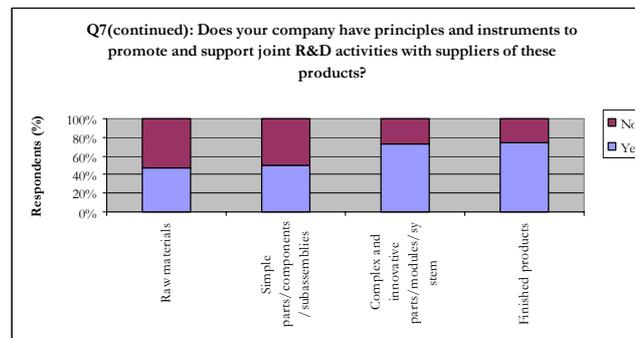


Figure A.8 – Joint R&D activities divided on product categories

In total, the respondents have principles and instruments to support these activities for 58% of the indicated product categories.

Thereafter, the respondents indicating that they have such principles were asked to indicate how the opportunities on joint R&D activities are affected by the fact that the supplier is located in a low cost country. Figure A.9 indicates that in many of the cases, the average opinion is that the opportunities on joint R&D activities are negatively affected. However when sourcing finished products, the respondents’ belief is that these opportunities are supported by the fact that the supplier is located in a low cost country.

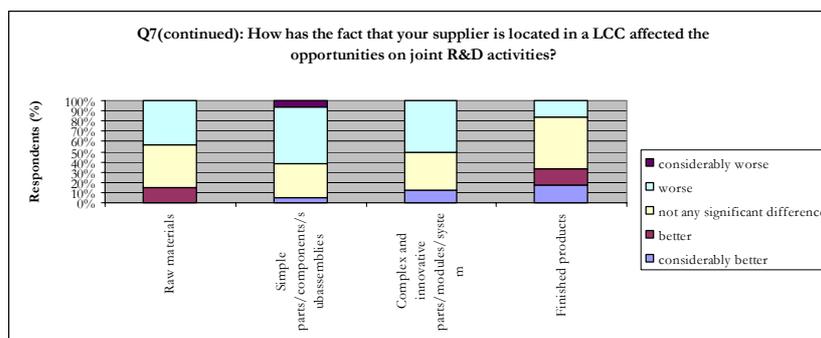


Figure A.9 – Supplier location affecting opportunities of joint R&D

## Performance & Targets

To be able to evaluate the companies and identify successful practices when sourcing from low cost countries, the respondents were asked to answer the following questions regarding their performance.

The first step was to find out what annual cost reductions on total direct procurement spend the sample population had achieved during the last three years. It turned out that during these years, the majority of the answering companies have been able to reduce their costs with an average annual cost reduction of 5.1%. To clarify future objectives the respondents were also asked to indicate their annual cost reduction target during the period 2003-2006. Here, most companies stated objected annual cost reductions on total direct procurement spend of 3-5%. In total, more than 75% of the respondents indicated some kind of targeted annual cost reduction during 2003-2006, with an average of 5.8% during the period.

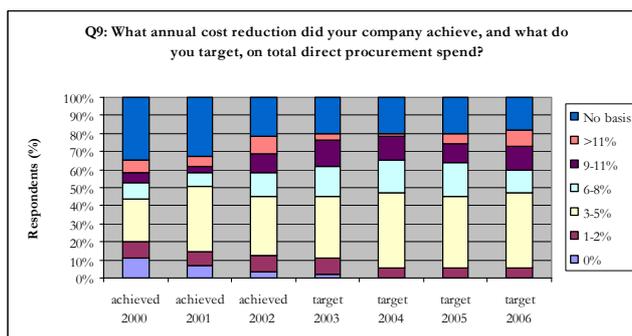


Figure A.10 – Achieved/targeted annual cost reduction, 2000-2006

The responding companies were also asked to indicate their annual cost reduction concerning landed costs on direct procurement spend sourced from low cost countries. Landed costs include price and actual transport costs, i.e. the total cost of acquiring the item when it is ready for production. The responses were scattered with an average annual cost reduction above 10%, though 1-5% was the most frequently indicated alternative.

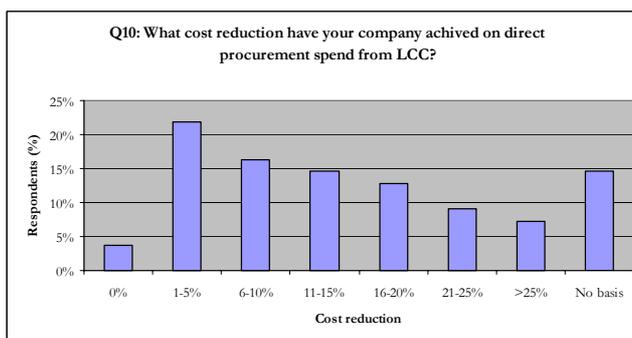


Figure A.11 – Annual cost reduction on low cost country procurement spend

Since cost reduction is not the only conclusive measurement of achievement, the authors of this survey chose to examine three other measurements to evaluate the participating companies. Quality Conformance (QC), Supplier Delivery Accuracy (SDA) and Lead Time (LT) were all compared between low cost country and non-low cost country sourcing, though out of a more qualitative perspective. The responding majority stated that the first two of these measurements were equal, while lead-time was considered worse when sourcing from low cost countries.

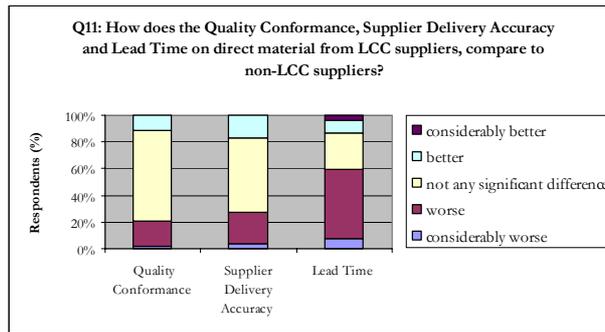


Figure A.12 – Quality conformance, supplier delivery accuracy & lead-time

### Sourcing Process & Procurement Procedures

Question 12 – 19 cover difficulties associated with the sourcing process, the purchasing process and other complications in managing the supplier relationship. Q12 – 18 are reported as the average value of the respondents’ opinions compared to sourcing from non-low cost countries (1 being not difficult at all, 3 being indifferent and 5 being extremely difficult). Underneath each question, different sub-activities are presented and a general option of the whole activity is indicated at the bottom. Additional difficulties, gathered through an open-end alternative, will be presented as “other difficulties” when appropriate.

The first step deals with the problems in “Searching for and selecting potential suppliers” in low cost countries. Sub-activities are “Analysing the competitive forces at the supplier market” and “Understanding industry trends”. These activities are needed to identify potential suppliers within the industry and to provide a picture of the market environment. The general opinion is that it is more difficult to carry out the different activities, when sourcing from low cost countries (a 3,0 average is equivalent to non-low cost countries).

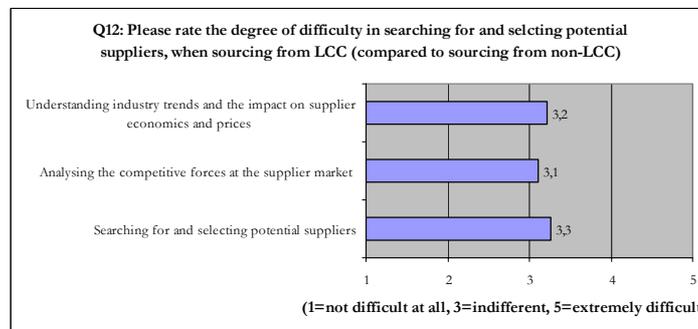


Figure A.13 – Searching for and selecting potential suppliers

During the second step, the potential suppliers are evaluated and screened in accordance to the company’s strategic priorities and selection factors. Sub-activities such as “Gathering information”, “Finding suppliers with adequate capabilities” and “Total cost analysis” are considered to be more difficult to conduct when sourcing from low cost countries. On the other hand, “Analysing switching costs” and “Identifying savings potential/opportunities resulting from different strategic alternatives” were not considered to be an issue. Some respondents have chosen to indicate other difficult activities e.g.; “Start up time to a stable supply base=4” and “Cost stability for a longer future period=5”.

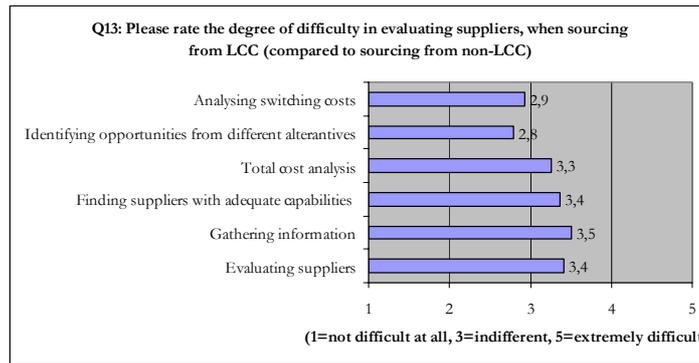


Figure A.14 – Evaluating suppliers

Depending on the characteristics of the product and the supplier industry, the companies have several options of sourcing tools. However, the respondents did not believe that sourcing from low cost countries makes it more difficult to select an appropriate sourcing tool. The difficulties involved in “Negotiating and selecting final suppliers” are primarily related to the sub-activities “Negotiating with suppliers” and “Verifying the suppliers’ true capabilities”. According to the respondents, other issues are “Culture differences=4” and “Technical specification verifications=4”. The entire step was given an average of 3,1 even though it involves some critical elements.

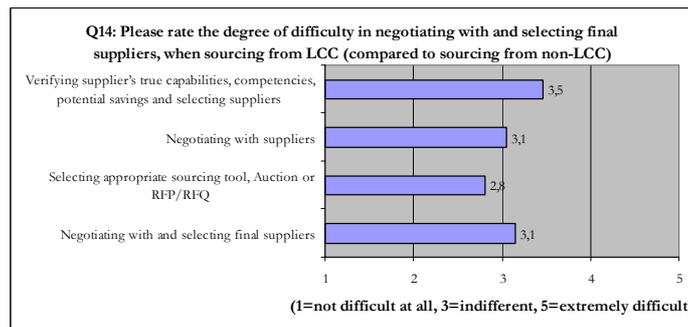


Figure A.15 – Negotiation with and selection of final suppliers in low cost countries

After selecting a winner from the supplier competition, most contracts require additional negotiations to finalise legal details and business processes. Looking at the diagram, it is quite evident that the respondents did not believe that it is more difficult to agree on contractual terms and conditions with suppliers in low cost countries. Nevertheless, “Taking legal aspects and requirements into account” has an average of 3,4 and is more difficult to consider according to the respondents. The general opinion on the complete step, “Designing contract and finalising agreements”, was given an average of 3,2.

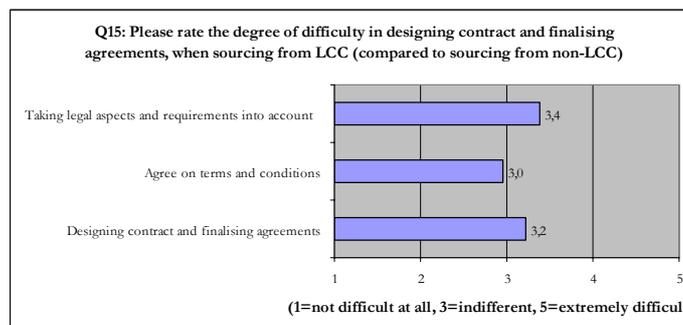


Figure A.16 – Contracts and agreements when sourcing from low cost countries

“Starting up production” is the final step of the sourcing process, where procurement staff implements the agreements and institute performance measurements. Buyers can also choose to develop their suppliers in order to ensure compliance with the contract. According to the respondents, difficulties in “Starting up production” originate from “Improving the performance of the suppliers” and “Implementing and agreeing on performance measurements”. However, they did not consider it more difficult to measure the performance of their suppliers’ in low cost countries. Other difficulties involved are attaining “Lead-time reductions=3”.

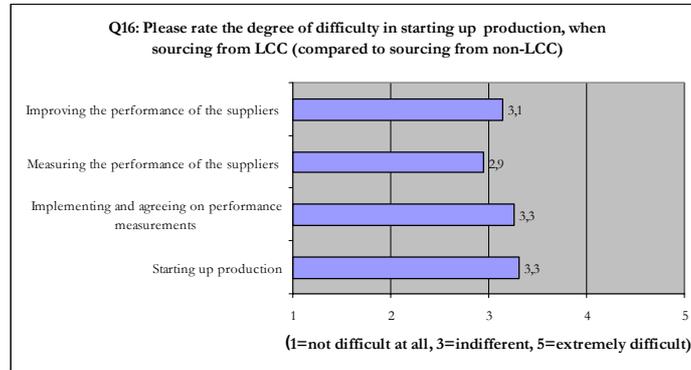


Figure A.17 – Starting up production when sourcing from low cost countries

“Continuing production and deliveries” deals with the operational part of procurement i.e. the different activities in the purchasing process. Sub-activities such as “Order processing”, “Delivery follow-up” and “Paying and financial transactions” were not considered to cause any additional difficulties. Since the average degree of difficulty for the different activities is indicated as 3,0 or lower, it should rather be easier to carry out these activities when sourcing from low cost countries. However, quality problem handling was believed to be more complicated according to the respondents (average=3,4). Other difficulties indicated in the open-end alternative are; “Engineering changes - long transport time, lot of inventory in transit in old configuration=5” and “Documentation issues=4”.

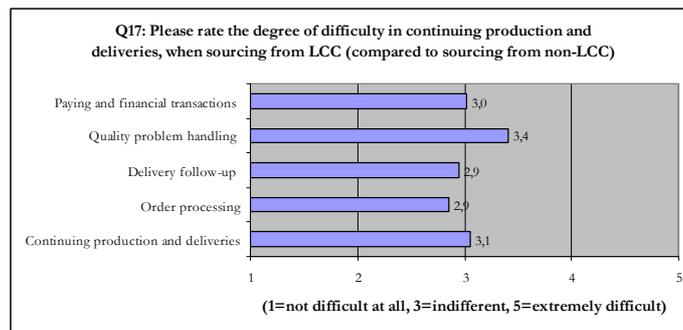


Figure A.18 – Continuing production and deliveries

“Managing the supplier relationship” involves sub-activities such as; “Fulfilling the commitments”, “Managing conflicts”, “Communicating with the supplier” and “Maintaining cultural awareness”. All these activities were regarded as more complicated to conduct when sourcing from low cost countries. Still, “Managing the supplier relationship” was regarded as the least complicated step with an average of 3,0 i.e. the same degree of difficulty as sourcing from non-low cost countries. Additional complications are “Time difference, expensive and time-consuming travel if not already in China=5” and “Spreading the awareness of the relationship within the organisations=4”.

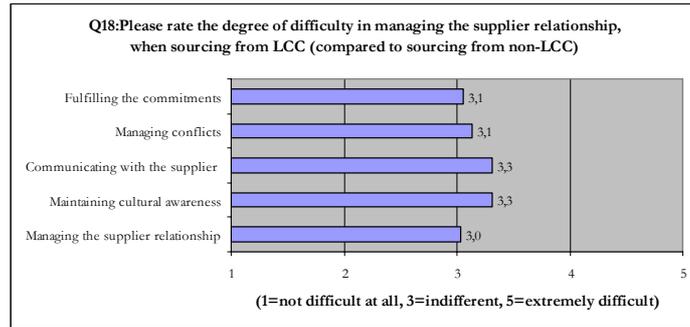


Figure A.19 – Managing the supplier relationship in low cost countries

Time is also an important factor when considering the difficulties that buyers’ run into during the sourcing process. According to the figure, the most time consuming steps are “Starting up production” and “Searching for and selecting potential suppliers”. Almost 40% of the respondents indicated that these steps take more than 3 months to perform.

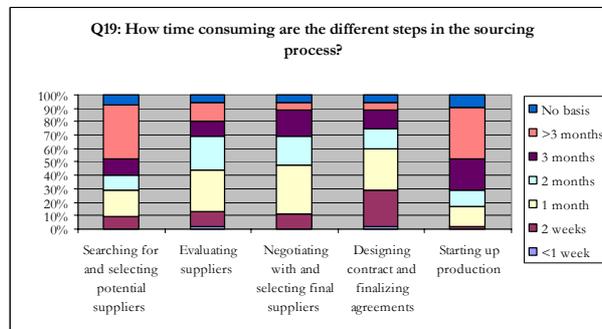


Figure A.20 – Time consumption in the sourcing process

A rough estimation gives a general perception of how time is distributed between the different stages in the sourcing process.

Sourcing Process Step	<1 week	2 weeks	1 month	2 months	3 months	>3 months	No basis	Average (weeks)
Searching for and selecting potential suppliers	0%	9%	20%	11%	13%	40%	7%	10,5
Evaluating suppliers	2%	11%	31%	25%	11%	15%	5%	7,6
Negotiating with and selecting final suppliers	0%	11%	36%	22%	20%	5%	5%	7,1
Designing contract and finalizing agreements	2%	27%	31%	15%	15%	5%	5%	5,9
Starting up production	0%	2%	15%	13%	24%	38%	9%	11,6
Total (average)								42,7

Table A.1 – Time consumption over the different stages in the sourcing process

Since some of these steps can be carried out simultaneously, the respondents where also requested to assess the estimated total time of the sourcing process.

What is the typical total lead-time of a LCC sourcing process?	
Average (weeks)	37,2

Table A.2 – Total lead-time of a low cost country sourcing process

## Organisation & Human Capabilities

Question 20 – 21 cover different organisational approaches to purchasing and the specific competences needed for successful sourcing from low cost countries.

In question 20 the respondents had the opportunity to indicate several answers. I.e. if appropriate, they could indicate more than one approach to purchasing from low cost countries. Almost 60% of the respondents indicated that they are “Purchasing on a direct basis from a local/domestic purchasing office”. Over 40% claimed that they in some case have consolidated their volumes and are purchasing from a corporate purchasing office. The outcome of this question suggests that purchasing through an IPO is not a common purchasing approach when sourcing from low cost countries. Other alternatives given by the respondents are; “Direct from supplier=7%”, “Direct from LCC-factory=2%”, “By using supplier companies based in Europe=2%”, “Don’t purchase from LCC today, but first contacts made through local agents=2%”.

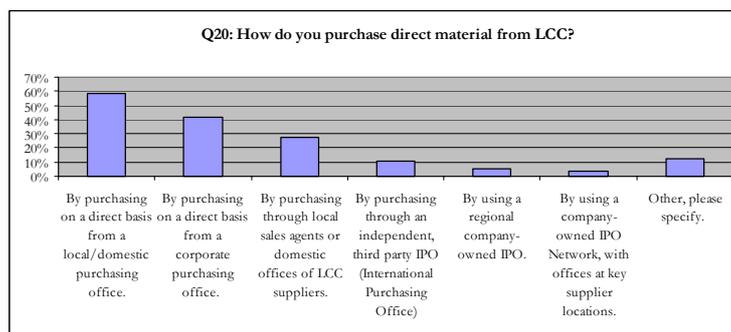


Figure A.21 – How to purchase direct material from low cost countries

Question 21 consists of two parts; the “Importance” of different competences and the procurement professionals’ “Current ability to execute” them when sourcing from low cost countries. The objective of this question was, to clarify which competences that are considered to be important and which competences companies need to secure/develop to be successful. The respondents were asked to rank the importance in relation to sourcing from non-low cost countries “1 being not important at all, 3 being indifferent and 5 being extremely important”. The outcome is presented in figure A.22 as the average value of the given answers. Based on the respondents’ average opinion the most important competences are; “Supplier Negotiation”, “Language Skills”, “Integrity Ethics & Cultural Awareness”, “Extensive Product & Commodity Knowledge” and “Handling of Customs Currency & Incoterms”. The greatest gap between the importance of a competence and the companies’ current ability to execute it, can be observed as “Local Regulation Knowledge”. Note that “Supplier Negotiation”, which is considered as being most important, also has the second largest gap.

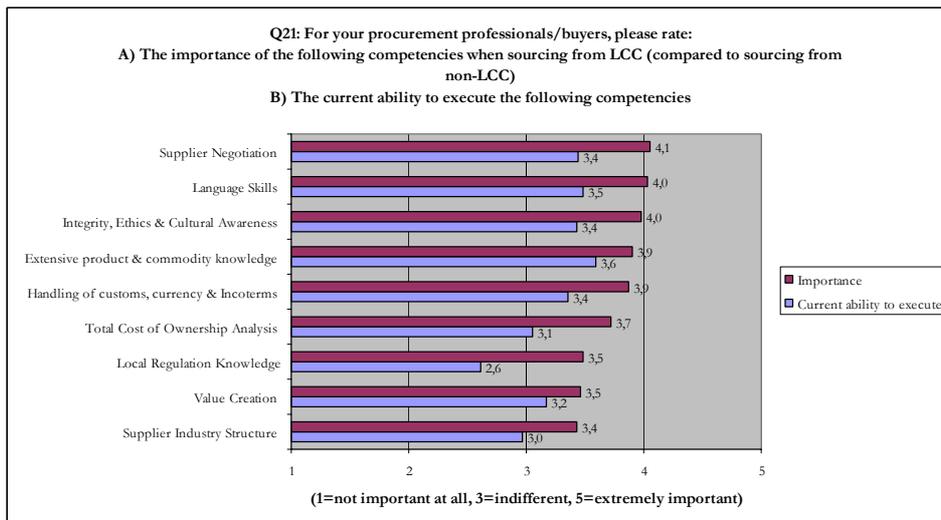


Figure A.22 – Importance of/ Current ability to execute competences

Presented in a scatter plot, it is quite evident that the respondents’ general opinion on their “Current ability to execute” is clearly below the “Importance” of the different competences involved in the survey.

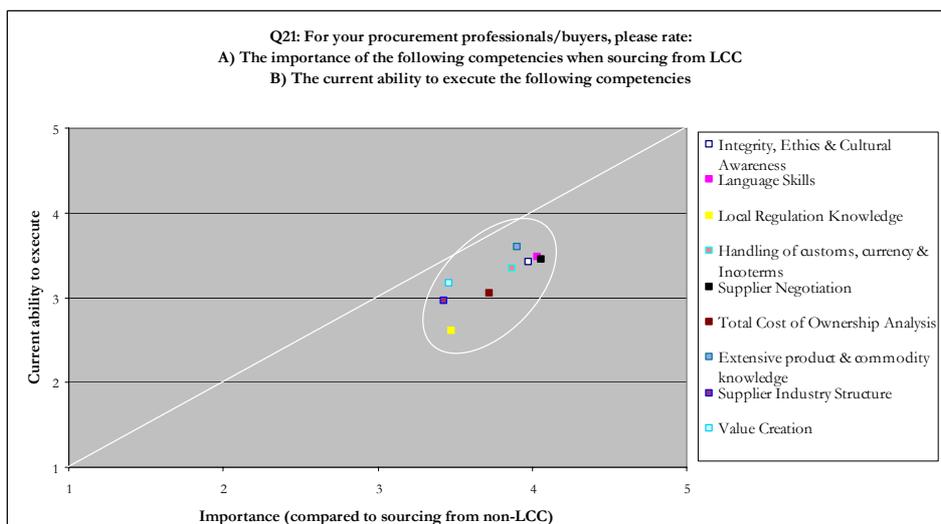


Figure A.23 – Scatter plot on importance of and current ability to execute competences



## Appendix B – Why sourcing from Low Cost Countries?

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To analyse why some countries/regions are more competitive than others Michael Porter introduced a model known as Porter's Diamond (please see figure 3.1). It consists of four basic and two residual factors shaping the industrial environment that support and hold back the creation of competitive advantages. These four basic attributes will here be applied on the phenomenon of low cost countries. The two other factors, government and chance, are very country specific and will therefore not be analysed below.

- *Factor conditions* – involves the situation in a country regarding production factors which are relevant for competition in particular industries. For low cost countries the cost of labour is the most characteristic factor condition.
- *Demand conditions* – describes the state of home demand for products and services produced in a country. By sourcing from low cost countries the cost of the final product may be lowered. In the existing competitive market a company's success is dependent on the final customer. Reduced purchasing costs may lead to lower selling prices and to an increased market share. In that way both the buying company and the final customer will be a benefactor of low cost country sourcing.
- *Related and supporting industries* – involves the existence or non-existence of internationally competitive supplying industries and supporting industries. A company has the opportunity to coordinate activities in the value chain or common activities for complementary products, such as negotiating, purchasing, product development etc. Many companies, within the sample population, conduct production and R&D activities within the same countries they also source direct material from. In that way, they also have the opportunity to coordinate such activities. This may also facilitate the movement of other parts of a business in the coming future.
- *Firm strategy, structure and rivalry* – consists of conditions in a country that determine how companies are established, organised and managed. Further, this also involves characteristics of domestic competition. In this area, cultural aspects and language play an important role. In different countries, factors like management structures, working morale or interactions between companies are shaped differently. This will provide advantages and disadvantages for particular industries. Sourcing from a low cost country may involve difficulties within these areas. When sourcing from a low cost country, it might be more important to consider country-specific characteristics, such as culture and language. Suppliers in these countries might not use the English language to the same extent. At the same time, the cultural manners in a specific country may involve certain behaviours in conducting business. Therefore, language skills and cultural knowledge may be crucial when doing business with suppliers in a foreign country, for example a low cost country.

When sourcing internationally there are a number of factors to consider. The existence of cultural and communication barriers, increased lead-time and transport costs, added employee travel costs, variations in the degree of involvement, and the perceived risks. Further, the political and social situation in a specific country must be considered. It can be devastating to conduct business in a country where the political situation is unstable. Moreover, social issues, such as human rights and child labour, can have a negative effect on the company's reputation. Therefore, it is important to have a high level of understanding of the political, social, economic and business environment in a country, from which a company source/intend to source.



## Appendix C – Survey Questionnaire



# Low Cost Country Sourcing Survey 2003



### Low Cost Country Sourcing Survey 2003

This survey is being conducted by Henrik Eriksson & Jockum Lerenius, Lund Institute of Technology (Lund University), in cooperation with Accenture.

The purpose of this research is to identify successful purchasing and supply management practices when sourcing from Low Cost Countries.

Please, take some time to reply to this survey. Answer all questions and if you are not sure of an answer, please provide your best estimate.

Your responses will remain strictly confidential and specific figures will not be presented individually or together with the name of your company.

The term Company is used throughout this questionnaire. This term may mean company, division or business unit. We expect you to interpret this term in a suitable manner and fill out this questionnaire from the perspective of your area of responsibility.

To begin the survey press the >> button at the bottom of this page. It is recommended that you do not use the browser's "back" and "forward" buttons, or your answers may not be saved.

If you have any questions regarding the survey and its content, please contact us at the following telephone numbers:

Henrik Eriksson: +46 (0)703 53 30 60

Jockum Lerenius: +46 (0)703 53 30 64

Thank you for your help,

Henrik Eriksson & Jockum Lerenius

### Definitions

**Direct material:** includes production related materials that are part of the finished product and procurement of outsourced production but excludes services.

**Direct procurement spend:** includes procurement spend on direct material.

**Landed costs:** includes price and actual transport costs, e.g. administration, insurance, freight, port fees, import taxes and internal delivery costs. That is the total cost of the direct material when it is ready for production.

**Low Cost Regions (LC-Regions):** includes parts of Central & South America, Asia, Africa, Central Europe and Eastern Europe with low costs of production.

**Low Cost Countries (LCC):** includes countries within the above mentioned Low Cost Regions.

### Background Information

#### Q1: What industry does your company operate in?

- Communications
- Electronics and High-tech
- Automotive and Industrial Equipment
- Pharmaceuticals and Medical Technology
- Chemicals
- Construction
- Other, please specify

#### Q2: What was your company's turnover in 2002?

(Ideally for the part of the organisation where you have procurement responsibility, if appropriate.)

- <100 Million Euros
- >100 to 500 Million Euros
- > 500 to 2500 Million Euros
- > 2500 to 12500 Million Euros
- >12500 Million Euros

**Q3: What was your company's total direct procurement spend?**

(Please indicate the answer as a **percentage** of your **company's turnover**. Ideally for the part of the organisation where you have procurement responsibility.)

0-10% 
  11-20% 
  21-30% 
  31-40% 
  41-50% 
  51-60% 
  61-70% 
  71-80% 
  >80% 
  No basis

2002

**Q4: How many procurement professionals/buyers are there in your company?**

(Please answer in number of **Full Time Equivalent**.)

No of procurement professionals/buyers within the procurement department:

No of procurement professionals/buyers within the procurement department working with LCC:

**i Product Categories & Regions**

**Definitions**

**Central Europe:** includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

**Eastern Europe:** includes Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Turkey, Ukraine, Serbia and Montenegro.

**South East Asia:** includes Cambodia, Indonesia, Malaysia, Vietnam, Myanmar (Burma), Laos, Philippines, Taiwan and Thailand.

**Q5: For how long time has your company been sourcing direct material from LCC?**

Start-up 
  >0-2 years 
  >2-4 years 
  >4-6 years 
  >6-8 years 
  >8-10 years 
  >10-12 years 
  >12 years

experience

**Q6: How is (will) your direct procurement spend (be) distributed across the following LC-Regions?**

(Please indicate your answer as a percentage of total direct procurement spend. The total of each column should add up to your company's direct procurement spend from LC-Regions.)

	Today (%)	2006 (%)
Central & South America (except Mexico):	<input type="text"/>	<input type="text"/>
Mexico:	<input type="text"/>	<input type="text"/>
South East Asia:	<input type="text"/>	<input type="text"/>
Rest of Asia (except China & Japan):	<input type="text"/>	<input type="text"/>
China:	<input type="text"/>	<input type="text"/>
Central Europe:	<input type="text"/>	<input type="text"/>
Eastern Europe:	<input type="text"/>	<input type="text"/>
Africa	<input type="text"/>	<input type="text"/>
Other, please specify: <input type="text"/>	<input type="text"/>	<input type="text"/>
Other, please specify: <input type="text"/>	<input type="text"/>	<input type="text"/>

**Q7: Which of the following product categories best describe the types of goods that your company currently are (will be) sourcing from LCC?**

(Please indicate the appropriate alternatives.)

	Today	2006
Raw materials.	<input type="checkbox"/>	<input type="checkbox"/>
Simple parts/components/subassemblies.	<input type="checkbox"/>	<input type="checkbox"/>
Complex and innovative parts/modules/systems.	<input type="checkbox"/>	<input type="checkbox"/>
Finished products.	<input type="checkbox"/>	<input type="checkbox"/>

**Q7(continued): Raw material - Which of the following alternatives best describe the characteristics of these products?**

- Items that have a low supply market complexity (i.e. a large number of potential suppliers ) and a low strategic importance.
- Items that have a low supply market complexity (i.e. a large number of potential suppliers) and high strategic importance.
- Items that have a high supply market complexity (i.e. a limited number of potential suppliers) and a low strategic importance.
- Items that have a high supply market complexity (i.e. a limited number of potential suppliers) and high strategic importance.

**Q7(continued): Raw material - Which of the following alternatives best describe the level of your relationship to LCC-suppliers of these products?**

- Independent — Each party acts independently and in its own interest, focusing primarily on the efficiency of the transaction.
- Cooperative — Both parties informally share information and resources on an ad-hoc basis, with high level of understanding of the impact their businesses have on each other.
- Collaborative — A planned sharing of information and/or resources exists with each party working to benefit the other's operations or business economics.
- Fully integrated — The suppliers are fully integrated in the product development process from start to finish.

**Q7(continued): Raw material - Which of the following alternatives best describe your company's supplier base for the products sourced from LCC?**

- Sole source (i.e. only one supplier is approved/have the right to produce the part) from LCC.
- Single source (i.e. one supplier is used to produce the part) from LCC.
- Dual source (i.e. two suppliers are used to produce the products) from LCC exclusively.
- Dual source (i.e. two suppliers are used to produce the products) from LCC with a second source in a non-LCC.
- Multi source (i.e. more than two suppliers are used to produce the product) from LCC exclusively.
- Multi source (i.e. more than two suppliers are used to produce the product) from LCC with at least a second source in a non-LCC.

**Q7(continued): Raw material - To which production facilities/business units are you sourcing these products?**

- To our own LCC/LC-Region production facilities/business units.
- To our own non-LCC production facilities/business units.
- To both our own non-LCC and LCC/LC-Region production facilities/business units.

**Q7(continued): Raw material - Does your company have principles and instruments to promote and support joint R&D activities with suppliers of these products?**

- Yes
- No

**Q7(continued): Raw material - How has the fact that your supplier is located in a LCC affected the opportunities on joint R&D activities?**

- considerably better
- better
- not any significant difference
- worse
- considerably worse

**Q8: Which of the following alternatives do you consider as motives to source from LCC?**

*(Please select up to five factors.)*

- To create competition among existing suppliers.
- To achieve lower prices.
- To achieve better quality.
- To obtain products available only within the LC-Region/LCC.
- To access advanced technology within the LC-Region/LCC.
- To facilitate existing production/sales activities within the LC-Region/LCC.
- To benefit from opportunities on joint R&D activities with suppliers.
- To attain more flexible deliveries.
- To obtain specific competences within the LC-Region/LCC.
- Existing supplier has moved their production to a LC-Region/LCC.
- To meet counter-purchase agreements.
- To fulfil requirements for local content in final product.
- Other, please specify.

**i Performance & Targets**

**Q9: What annual cost reduction did your company achieve, and what do you target, on total direct procurement spend?**

(Please indicate an answer on each line.)

	0%	1-2%	3-5%	6-8%	9-11%	>11%	No basis
achieved 2000	<input type="checkbox"/>						
achieved 2001	<input type="checkbox"/>						
achieved 2002	<input type="checkbox"/>						
target 2003	<input type="checkbox"/>						
target 2004	<input type="checkbox"/>						
target 2005	<input type="checkbox"/>						
target 2006	<input type="checkbox"/>						

**Q10: What cost reduction have your company achieved on direct procurement spend from LCC?**

(Please indicate the answer as **annual cost reduction concerning landed costs** on direct procurement spend from LCC.)

	0%	1-5%	6-10%	11-15%	16-20%	21-25%	>25%	No basis
annual cost reduction (landed costs)	<input type="checkbox"/>							

**Q11: How does the Quality Conformance, Supplier Delivery Accuracy and Lead Time on direct material from LCC suppliers, compare to non-LCC suppliers?**

	considerably worse	worse	not any significant difference	better	considerably better
Quality Conformance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supplier Delivery Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead Time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**i Sourcing Process & Procurement Procedure**

**Q12: Please rate the degree of difficulty in searching for and selecting potential suppliers, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	1	2	3	4	5
Searching for and selecting potential suppliers (Search for and identify potential suppliers.)	<input type="checkbox"/>				

**Subactivities in Searching for and selecting potential suppliers**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	1	2	3	4	5
Analysing the competitive forces at the supplier market.	<input type="checkbox"/>				
Understanding industry trends and the impact on supplier economics and prices.	<input type="checkbox"/>				
Other, please specify. <input type="text"/>	<input type="checkbox"/>				

**Q13: Please rate the degree of difficulty in evaluating suppliers, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
<b>Evaluating suppliers</b>	<input type="checkbox"/>				
(Evaluate supplier capabilities.)					

**Subactivities in Evaluating suppliers**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
Gathering information about the suppliers (e.g. financial, cost structure and strategic direction).	<input type="checkbox"/>				
Finding suppliers with adequate technical capabilities and good quality systems in place.	<input type="checkbox"/>				
Analysing and quantifying supplier's cost drivers, components of the purchase price and additional costs beyond purchase price.	<input type="checkbox"/>				
Identifying savings potential and cost reduction opportunities resulting from different strategic alternatives/suppliers.	<input type="checkbox"/>				
Analysing and quantifying switching costs.	<input type="checkbox"/>				
Other, please specify. <input type="text"/>	<input type="checkbox"/>				

**Q14: Please rate the degree of difficulty in negotiating with and selecting final suppliers, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
<b>Negotiating with and selecting final suppliers</b>	<input type="checkbox"/>				
(Negotiating with and selecting suppliers that best meet your company's requirements.)					

**Subactivities in Negotiating with and selecting final suppliers**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
Selecting appropriate sourcing tool, Auction or RFP/RFQ.	<input type="checkbox"/>				
Negotiating with suppliers.	<input type="checkbox"/>				
Verifying supplier's true capabilities, competencies, potential savings and selecting suppliers.	<input type="checkbox"/>				
Other, please specify. <input type="text"/>	<input type="checkbox"/>				

**Q15: Please rate the degree of difficulty in designing contract and finalizing agreements, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
<b>Designing contract and finalizing agreements</b>	<input type="checkbox"/>				
(Execute final negotiations and making the contract.)					

**Subactivities in Designing contract and finalizing agreements**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

	<input type="checkbox"/>				
	1	2	3	4	5
Agree on terms and conditions.	<input type="checkbox"/>				
Taking legal aspects and requirements into account.	<input type="checkbox"/>				
Other, please specify. <input type="text"/>	<input type="checkbox"/>				

**Q16: Please rate the degree of difficulty in starting up production, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

**Starting up production**  
 (Implement the contract in the organisation. Define and establish performance metrics.)

**Subactivities in Starting up production**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

Implementing and agreeing on performance measurements.

Measuring the performance of the suppliers.

Improving the performance of the suppliers.

Other, please specify:

**Q17: Please rate the degree of difficulty in the continuing production and deliveries, when sourcing from LCC,**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

**Continuing production and deliveries**  
 (Operational tasks i.e. the day-to-day work.)

**Subactivities in Continuing production and deliveries**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

Order processing.

Delivery follow-up.

Quality problem handling.

Paying and financial transactions.

Other, please specify:

**Q18: Please rate the degree of difficulty in managing the supplier relationship, when sourcing from LCC.**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

**Managing the supplier relationship**  
 (Managing and developing the supplier relation.)

**Subactivities in Managing the supplier relationship**

(1 being not difficult at all, 3 being indifferent, 5 being extremely difficult; compared to sourcing from non-LCC.)

1    2    3    4    5

Maintaining cultural awareness.

Communicating with the supplier.

Managing conflicts.

Fulfilling the commitments.

Other, please specify:

**Q19: How time consuming are the different steps in the sourcing process regarding LCC?**

(Please make your best estimate)

	<1 week	2 weeks	1 month	2 months	3 months	>3 months	No basis
Searching for and selecting potential suppliers.	<input type="radio"/>						
Evaluating suppliers.	<input type="radio"/>						
Negotiating with and selecting final suppliers.	<input type="radio"/>						
Designing contract and finalizing agreements.	<input type="radio"/>						
Starting up production.	<input type="radio"/>						

**What is the typical total lead time of a LCC sourcing process? (From searching for suppliers to signing the contract.)**

(Please sum up the total of each step in Q19. Please answer in number of months i.e. 3,5.)

**1 Organisation & Human Capabilities**

**Q20: How do you purchase direct material from LCC?**

(Please indicate the appropriate alternatives.)

- By purchasing on a direct basis from a local/domestic purchasing office.
- By purchasing on a direct basis from a corporate purchasing office.
- By purchasing through local sales agents or domestic offices of LCC suppliers.
- By purchasing through an independent, third party IPO (International Purchasing Office) organisation at major markets.
- By using a regional company-owned IPO.
- By using a company-owned IPO Network, with offices at key supplier locations.
- Other, please specify.

**Q21: For your procurement professionals/buyers, please rate:  
 A) The importance of the following competencies when sourcing from LCC (compared to sourcing from non-LCC).  
 B) The current ability to execute the following competencies.**

A) (1 being not important at all, 3 indifferent, 5 being extremely important.)  
 B) (1 being very low, 3 medium, 5 being very high.)

	Importance					Current ability to execute				
	1	2	3	4	5	1	2	3	4	5
<b>Integrity, Ethics &amp; Cultural Awareness</b> Ability to demonstrate ethical/professional behaviours and the ability to encounter/deal in a foreign culture in order to maintain/develop confidence and trust.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Language Skills</b> Language skills to ease communication and negotiation with suppliers in LCC.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Local Regulation Knowledge</b> Knowledge of local laws and regulations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Handling of customs, currency &amp; Incoterms</b> Buyer's knowledge of how to handle Incoterms, legal aspects, currency & customs in order to provide an adequate level of risk management for the whole supply chain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Supplier Negotiation</b> Ability to prepare, coordinate and conduct negotiations with suppliers. Ability to negotiate agreements to achieve results that support sourcing strategies and company objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Total Cost of Ownership Analysis</b> Ability to build Total Cost of Ownership model, identify drivers of TCO and analyse the impact of each driver.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
<b>Extensive product &amp; commodity knowledge</b> Technical specifications, possible substitutes etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

**Risks & Success Factors**

**Q22: Which of the following organisational/relational approaches do you consider as particularly important when sourcing from LCC?**

(Please select up to five factors.)

- Institute cross-functional and cross-site coordination of LCC-supplier selection decisions (e.g. through Corporate Sourcing Committees)
- Appoint supplier managers/lead buyers for part families/commodity groups.
- Create centrally coordinated cross-functional and cross-site commodity teams.
- Establish procedures or specific training to secure/develop competencies needed for LCC-sourcing.
- Perform periodic "follow-up" to see if supplier remains price, quality, service and technology competitive.
- Focus on developing long-term relationships with LCC-suppliers.
- Top company management involvement (your organisation).
- Perform joint evaluation of performance and sharing of risks/rewards resulting from the contract with the supplier.
- Joint supplier development teams.
- Establish local presence (e.g. production facilities or international purchasing offices) in LCC.
- Develop a high degree of trust between buyer-supplier, through continuous communication and open sharing of information.
- Other, please specify.

**Q23: Which of the following import risks are your company particularly exposed to when sourcing from LCC?**

(Please select up to three risks.)

- Exchange/currency risk
- Risk of non-delivery or non-performance (i.e. supplier will not perform according to contract, e.g. deliver the wrong or inferior goods or not deliver on time)
- Credit risk (your supplier or other parties in the payment chain, such as banks, may become insolvent)
- Transfer risk (changes in government regulations will prevent or restrict your ability to make payments or exchange currency)
- Country risk (changes in government regulations will prevent or restrict your ability to receive goods)
- Transport risk (the goods might be stolen or damaged during transport)
- Risk of fraud
- Other, please specify.

**Q24: Which of the following factors reduce your company's ability to increase the share of direct procurement spend from LCC?**

(Please select up to five factors.)

- High switching costs.
- High import risks.
- Comfortable agreements with present suppliers
- Being bound by contract to present suppliers.
- Present suppliers' unwillingness to change locations
- Scarcity of suppliers in LCC that meet your company's code of ethics.
- Suppliers in LCC have a negative impact on your company's brand value.
- Scarcity of suppliers in LCC that have sufficient quality systems in place regarding working procedures and environmental policies.
- Shortage of suppliers in LCC with adequate capabilities and competencies within LCC.
- Increases in additional costs of acquiring the products, which are not compensated by the reductions in purchase price.
- Increasing inventory costs.
- Lack of capabilities/resources and competencies within your organization.
- Scarce communication with suppliers in LCC.
- Shortage of technology that facilitates purchasing and transferring of drawings/specs (EDI, CAD, CAM) in LCC.
- Sourcing from LCC does not facilitate JIT-delivery.
- Other, please specify.

**Q25: Please indicate your contact information so that we can send you the results of this survey.**

*(Of course, this information will be handled strictly confidentially.)*

Name:	
Company:	
Business Area/Business Unit/Corporate Level:	
Title:	
Area of responsibility (regarding LCC):	
Address:	
Zip code:	
City:	
Tel:	
E-mail:	

## Appendix D – Survey Follow-up



LUNDS TEKNISKA  
HÖGSKOLA  
Lunds universitet

# Low Cost Country Sourcing Survey 2003



LUNDS  
UNIVERSITET



### Follow up - Low Cost Country Sourcing Survey 2003

Dear Madam/Sir

The purpose of this follow-up is to clarify misinterpretations regarding question 6 in the “Low Cost Country Survey 2003” that you participated in. Your participation is very valuable to us and it is important that we get the correct answers in order to guarantee the quality of the study.

Please take some time, approximately 2 minutes, to reply to this question. If you are not sure of an exact percentage, please provide your best estimate.

Your responses will remain strictly confidential and specific figures will not be presented individually or together with the name of your company.

The term Company is used in this question. This term may mean company, division or business unit. We expect you to interpret this term in a suitable manner and answer from the perspective of your area of responsibility.

To answer the question press the >> button at the bottom of this page. It is recommended that you do not use the browser's “back” and “forward” buttons, or your answers may not be saved.

If you have any questions regarding this question and its purpose, please contact us at the following telephone numbers:

Henrik Eriksson: +46 (0)703 53 30 60  
Jockum Lerenius: +46 (0)703 53 30 64

Thank you for your help!

Sincerely

Henrik Eriksson & Jockum Lerenius



### Definitions

**Direct material:** includes production related materials that are part of the finished product and procurement of outsourced production but excludes services.

**Total direct procurement spend:** is the procurement spend on direct material for your company.

**Low Cost Regions (LC-Regions):** includes parts of Central & South America, Asia, Africa, Central Europe and Eastern Europe with low costs of production.

**Low Cost Countries (LCC):** includes countries within the above mentioned Low Cost Regions.



## Product Categories & Regions

### Definitions

**Central Europe:** includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

**Eastern Europe:** includes Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Macedonia, Moldova, Romania, Russia, Turkey, Ukraine, Serbia and Montenegro.

**South East Asia:** includes Cambodia, Indonesia, Malaysia, Vietnam, Myanmar (Burma), Laos, Philippines, Taiwan and Thailand.

## Q6: How is (will) your direct procurement spend (be) distributed across the following LC-Regions?

Please indicate your answer as a percentage of total direct procurement spend. The total of each column should add up to the percentage of your company's total direct procurement spend, that is sourced from LC-Regions. I.e. the sum of each column should not sum up to 100%, unless your company is sourcing exclusively from LC-Regions.

	Today (%)	2006 (%)
Central & South America (except Mexico):	<input type="text"/>	<input type="text"/>
Mexico:	<input type="text"/>	<input type="text"/>
South East Asia:	<input type="text"/>	<input type="text"/>
Rest of Asia (except China & Japan):	<input type="text"/>	<input type="text"/>
China:	<input type="text"/>	<input type="text"/>
Central Europe:	<input type="text"/>	<input type="text"/>
Eastern Europe:	<input type="text"/>	<input type="text"/>
Africa	<input type="text"/>	<input type="text"/>
Other, please specify: <input type="text"/>	<input type="text"/>	<input type="text"/>
Other, please specify: <input type="text"/>	<input type="text"/>	<input type="text"/>

## Appendix E – In-depth Interview Questionnaire

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**Company:**

**Name:**

**Date:**

### **In-depth Interview Questions**

1. Given some objective to increase cost savings, many companies have the ambition to increase the share of purchasing from low cost countries.

- Is sourcing from low cost countries a part of the pronounced strategy for reducing costs/increasing the cost savings?

2. According to the performed analysis, we observed that a high cost reduction is obtained initially, to be decreased over the next couple of years. Furthermore, the total sourcing process time, i.e. the amount of time it takes from searching for suppliers until a company is ready for production, varies for different companies with a different degree of experience. It even seems as the amount of time increase despite an increase in experience.

- A. Is this in accordance with your experience and opinion? What do you do to maintain the obtained cost reduction over time?
- B. Is a common approach to start sourcing relatively easily managed items (“low-hanging fruits”), and then, after some time, proceed with more complex managed items?
- C. Which items do you source from low cost countries?

### **3. The Sourcing Process**

Top Performers, companies that we consider more successful than others regarding sourcing from low cost countries, have a more efficient sourcing process.

- A. Do you have any specific sourcing process for low cost country purchasing?
- B. Broadly, what does the sourcing process look like, what different phases do you go through, and what is important to have in mind when searching for suppliers in low cost countries?

### **4. Step 2 – Evaluating Suppliers**

Top Performers consider gathering of information to be more difficult, while cost analysis is easier to conduct, when sourcing from low cost countries.

- A. Why is it difficult to gather information about the suppliers? Is it due to the access of information, is more detailed information needed for conducting the cost analysis, or do you generally require more information from/about suppliers when sourcing from low cost countries?
- B. How do you, practically, proceed when gathering information about the supplier? Is it conducted from Sweden or do you have local personnel handling this process? Do you have access to any kind of information system or do you simply phone the supplier? Do you travel to the country and visit the supplier?
- C. Given that you have the adequate information, is it simple to conduct cost analysis and evaluate the supplier?
- D. Is there anything else of certain importance to consider when evaluating suppliers in low cost countries?

### 5. Step 3 – Negotiating and Selecting Final Suppliers

Despite issues like geographical distance, time-difference, cultural and language differences, it does not seem to be particularly difficult to select and negotiate with the suppliers in low cost countries.

- A. Given a thorough evaluation at an earlier stage of the process, do you consider it simple to verify suppliers' true capacity?
- B. Why is it not more complicated to negotiate with and select suppliers in low cost countries, than in non-low cost countries? How do you confront issues like geographical distance, language, cultural, and time-differences?

### 6. Step 4 – Designing Contract and Finalising Agreements

It seems like Top Performers do not consider it difficult to design contracts and finalise agreements with supplier in low cost countries. On the contrary they find it more difficult to take legal demands and aspects into consideration when conducting sourcing from these regions.

- A. Do you utilise certain standardised contracts for suppliers in low cost countries or do you mainly source easily managed items (from a contractual point of view)?
- B. How do you confront legal aspects and requirements?

### 7. Step 5 – Starting Up Production

According to the outcome of the performed survey, developing and measuring the suppliers' performance does not involve any certain issues.

- A. Do you develop your suppliers in low cost countries? If so, how do you proceed?
- B. How do you measure their performance?
- C. Are there any certain difficulties in starting up production and implementing performance measurements with suppliers in low cost countries?

### 8. Purchasing Process

How can it be that the operational part of the purchase (ordering, receiving, and paying) is considered less complicated when conducting sourcing from low cost countries? Do you mainly source the items to local production facilities/business units within the low cost country?

- A. *Ordering*; how do you conduct ordering from suppliers in low cost countries? Do you use any kind of computer system, i.e. EOQ, MRP, or JIT?
- B. *Receiving, delivery, follow-up & quality problem handling*; how are received deliveries documented, how do you confront quality problems/reclamations, and what do you do to maintain the lead-time (internal stock-keeping or at the supplier)?
- C. *Paying*; do you use any kind of computer system, i.e. EDI or the Internet? Do you utilise cost benefits of pre-payments?

### 9. Managing the Supplier Relationship

It seems like Top Performers do not consider preserving the relationship with the supplier as a major problem. Furthermore, communication do not either, constitute any major difficulty, which is somehow surprising due to the existing language and cultural differences and since the technological development has not reached as far in low cost countries/newly industrialised countries.

- A. Do you mainly conduct single/sole sourcing from low cost countries? If so, does this facilitate a closer relationship with the supplier, in order to facilitate the communication?

10. According to our study, the main motives for sourcing from low cost countries are:

“Existing supplier has moved their production”, “To facilitate local activities” and “To attain more flexible deliveries” are three alternatives which have been highly ranked by Top Performers. The last two

alternatives are factors associated with local business activity and the first alternative simply implies that the buying company has followed one of its already existing suppliers to a low cost country.

- A. According to your opinion, could this outcome be an explanation to why Top Performers do not experience the same difficulties as the other companies when sourcing from low cost countries?
- B. Is the general tendency within your industry that suppliers move their business activities to a low cost country?

“To meet counter purchase agreements” is a motive primarily associated with the defence industry.

- C. Are such agreements also common within your industry when it comes to sourcing from low cost countries?

### 11. How to Purchase?

According to the outcome of the survey, almost 65% of Top Performers' purchases are executed from their home country, i.e. a non-low cost country.

- A. Does this correspond with your approach or do you have procurement professionals/buyers situated in the low cost countries that you source from?

### 12. Capabilities

To conduct sourcing from low cost countries requires certain capabilities, such as: “Extensive product & commodity knowledge”, “Supplier negotiation”, and “Language skills”.

- A. According to you, is this accurate?
- B. What measures do you take to maintain the right level of competence within these areas?

The companies not considered as Top Performers consider “Handling of customs, currency & Incoterms” and “Integrity, Ethics & Cultural Awareness” to be more important than Top Performers.

- C. How can it be that the difference within these areas is so large?
- D. The gap between level of importance and the current ability to execute these capabilities is relatively big. What measures will you take to improve within these areas?

### 13. Organisational Approaches

According to the performed survey, the most important procedures, from an organisational perspective and to be successful, are: a high degree of trust between buyer and supplier, top company management involvement, to develop long-term relationships, to train and educate own personnel, as well as appointing certain supplier managers/lead buyers for part families/commodity groups.

- A. According to you, is this accurate? What do you do to maintain the right level within these areas?
- B. The alternative “Joint supplier development teams” has not been indicated to a large extent. Do you develop your suppliers? How do you actually proceed in this matter?

### 14. Risks

The most common risks a company experiences when sourcing from low cost countries are exchange/currency risks, risk of non-performance or non-delivery, and transport risks.

- A. Do you consider these risks as the most occurring?
- B. What do you do to avoid these risks?

### 15. Obstacles

Many companies strive to increase the share of sourcing from low cost countries. Yet, there are a number of obstacles making this approach more difficult to accomplish. Communication, lack of resources and knowledge within the buying company's own organisation, and lack of competence in the low cost country are all examples within this area.

- A. According to you, is this in accordance with the obstacles you experience/have experienced?

- B. What do you do to overcome these obstacles? (I.e. avoidance of switching costs through following existing suppliers moving to low cost countries? Do you recruit in order to obtain accurate resources in your organisation?)