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**The Navigations of SMEs' International Vendor Selection**  
A multiple-case study of Swedish SMEs' vendor selection in China

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**Graduate School**

Master of Science in Innovation and Industrial Management

Master Degree Project No. 2011:63

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## **Abstract**

*In today's fierce competitive environment, offshore outsourcing is a main stream practice in global business operations. In this context, vendor selection is a critical factor affecting outsourcing performance. It has furthermore been determined as a multiple criteria decision making problem. Despite a large set of literature, previous studies of vendor selection have predominantly focused on factors regardless the firm size. However, an increasing number of small and medium-sized enterprises (SMEs) have participated in selecting foreign vendors during last decades. Nevertheless, rather less is known about this phenomenon and especially on what basis SMEs select offshore vendors. The current paper aims to investigate SMEs' vendor selection by looking into the three dimensions: driving forces, vendor selection criteria and vendor selection methods. A multiple-case study and an explorative research approach are applied in this paper. Empirical findings are compared and analyzed against the results found in literature review. Evidently, the qualitative research indicates that SMEs prefer to focus on core selection criteria and simple methods rather than complex statistical models. Consequently, a framework for SMEs' effective vendor selection is proposed and analyzed.*

**Key words:** SMEs, vendor selection, driving forces, selection criteria, selection methods

## **Acknowledgement**

*This explorative Multiple-case study of eight chosen case organizations has been challenging and interesting. We would like to present our gratefulness to our supervisor Johan Brink for his guidance, support and constructive feedbacks. Furthermore large gratitude to the eight case organizations for their willingness to answer questions and taken their time. Last but not least, many thanks to Yovana Villafan and Bo Chen for valuable comments, support and dedication.*

*Many Thanks!*

*Cheng Qian and Patrik Östlund*

# Table of Content

<b>Introduction</b> .....	1
1.1 Background.....	1
1.2 Offshore Outsourcing.....	2
1.3 Sourcing in China .....	2
1.4 Vendor Selection.....	3
1.5 Small and Medium-Sized Enterprises.....	4
1.6 Problem Description .....	5
1.7 Research Question.....	6
1.8 Disposition .....	7
<b>Literature Review</b> .....	8
2.1 Introduction.....	8
2.2 Driving Forces.....	9
2.2.1 External Forces .....	10
2.2.2 Internal Forces.....	10
2.2.3 Internal Challenges .....	10
2.2.4 SMEs Specific Challenges .....	12
2.3 Strategic Decision Making .....	12
2.3.1 Phases of Strategic Decision Making.....	13
2.4 Vendor Selection .....	14
2.4.1 Vendor Selection Step by Step .....	14
2.5 Vendor Selection Criteria .....	16
2.5.1 Supplier Characteristics .....	17
2.5.2 Product Attributes .....	19

2.5.3	Service Attributes .....	20
2.5.4	Financial Terms.....	21
2.5.5	Business Context.....	21
2.6	Vendor Selection Methods .....	22
<b>Research Methodology</b> .....		28
3.1	Research Strategy.....	28
3.2	Research Design.....	29
3.2.1	Case Study Research.....	29
3.3	Research Method .....	30
3.3.1	Interview Guide.....	31
3.3.2	Perform Quality Interviews .....	33
3.4	Data Analysis.....	33
3.5	Research Quality .....	34
3.5.1	External Validity.....	34
3.5.2	Internal Validity.....	34
3.5.3	Reliability.....	35
<b>Empirical Study</b> .....		36
4.1	Company A (Roca) .....	36
4.2	Company B (Kominox).....	38
4.3	Company C (Metall Kompeniet).....	41
4.4	Company D (Anonymous) .....	43
4.5	Company E (Cellwood Machinery) .....	46
4.6	Agent A (Swedish Trade council).....	47
4.7	Agent B (Vantage China Production).....	49
4.8	Agent C (Linc Sourcing).....	51

<b>Analysis.....</b>	<b>54</b>
5.1 SMEs' Driving Forces.....	54
5.1.1 Important Driving Forces.....	54
5.1.2 External Driving Forces.....	55
5.1.3 Internal Driving Forces.....	56
5.2 Vendor Selection Criteria.....	57
5.2.1 Supplier Characteristics.....	59
5.2.2 Product Attributes.....	62
5.2.3 Service Attributes.....	62
5.2.4 Financial Terms.....	63
5.3 Qualitative and Quantitative Methods.....	63
5.3.1 Applied Qualitative Approaches.....	65
5.3.2 Vendor Selection Decision Making.....	66
<b>Conclusion.....</b>	<b>68</b>
6.1 Contribution.....	68
6.2 Driving Forces.....	68
6.3 Vendor Selection Criteria.....	69
6.4 Vendor Selection Methods0.....	70
6.5 Discussions.....	71
6.6 Further Research.....	71
<b>Reference List.....</b>	<b>73</b>
<b>Appendix.....</b>	<b>82</b>

## List of Abbreviations

AHP	<i>Analytical Hierarchy Process</i>
ANP	<i>Analytical Network Process</i>
CSR	<i>Corporate Social Responsibility</i>
DEA	<i>Data Envelopment Analysis</i>
EC	<i>European Commission</i>
FDI	<i>Foreign Direct Investment</i>
GP	<i>Goal Programming</i>
IP	<i>Integer Programming</i>
IP	<i>Intellectual Property</i>
ISM	<i>Interpretive Structural Modeling</i>
MAUT	<i>Multiple Attribute Utility Theory</i>
MCDM	<i>Multiple Criteria Decision Making</i>
MNEs	<i>Multinational Enterprises</i>
SMEs	<i>Small Medium- Sized Enterprises</i>
STC	<i>Swedish Trade Council</i>
TCO	<i>Total Cost of Ownership</i>

## Exhibits

### List of Figures

<i>Figure 1</i> Phases of Vendor Selection .....	..6
<i>Figure 2</i> Driving forces in a context of SMEs.....	10
<i>Figure 3</i> SMEs Strategic Decision Making.....	14
<i>Figure 4</i> Vendor Selection Step by Step.....	16
<i>Figure 5</i> Supplier Selection Criteria and Sub Criteria.....	18
<i>Figure 6</i> Vendor Selection Methods.....	23

### List of Tables

<i>Table 1</i> SME definition .....	4
<i>Table 2</i> Information Details.....	33
<i>Table 3</i> Analysis of Driving Forces.....	57
<i>Table 4</i> Analysis of Criteria.....	61
<i>Table 5</i> Analysis of Selection Methods.....	68

## Introduction

*This chapter provides the reader with basic understanding of the following sections. It starts with a brief explanation of offshore outsourcing, sourcing in China, vendor selection and SMEs. Focus is on argumentation of the research questions relevance and delimitations.*

### 1.1 Background

Driving forces for companies to offshore business functions are globally integrated labor and capital markets that are facilitated by better technology. Behind these developments there are factors of improved infrastructure, increased communication availability and liberalization. In sequence, the former competitive landscapes, mainly dominated by Multinational Enterprises (MNEs) are today facing new competitors. International markets enable participation of companies in any size, which resulted in an increased number of globally spread Small medium enterprises (SMEs) (UNCTAD, 2004). Further, approaching global activities they provide an evident number of networking clusters spread across regions and countries that; in consequence, sharpen industry specific competitiveness (Porter, 1998). However, new and changing structures', operating approaches and cultural values lead to new born fundamentals of global transformations where clusters lose and gain attractiveness (Saxenian, 1996). Subsequently, sustainable effectiveness comes to those firms flexible to change locations and cope with short innovation cycle times (Palmisano, 2006). This brings strong incentives for companies to undertake international sourcing and seek necessary changes to their structures, keeping core competences in-house and outsource low-value activities (McClaren, 2000). A crucial strategic decision for the sourcing company is then to select an efficient vendor (Herath and Kishore, 2009). The vendors need to fit the sourcing company's culture and meet technological requirements in order to ensure mandatory and consistent quality. Obvious and critical aspects during the evaluation phase include price levels, lead-time, quality and technological capabilities (Wadhwa & Ravindran, 2006). In other words, the uncertainty of selecting a vendor means the



evaluation of risks but also trade-offs between critical factors. Together with defining underlying problem and motives clarification it helps the company to set specific criteria.

## **1.2 Offshore Outsourcing**

Offshore outsourcing has become an international mainstream which largely determines a company's success level. Consequently, the success level is highly dependent on the sourcing company's ability to select appropriate vendors (Bhutta and Huq, 2002). Offshore outsourcing deals with the two concepts including geographical and legal aspect. It is a geographical concept in the sense it submit relocation of a value chains parts further than national borders. The legal term involve business activities, whether manufacturing or services which are procured externally rather than internally. The legal element in this case is subcontracting (Huws & Dahmann, 2004). In other words, offshore outsourcing is a company's external approach where functions are transferred to foreign providers' in parallel to "captive offshoring" which includes fully owned and controlled subsidiaries overseas (Lewin & Peeters, 2006). In this case we will focus on offshore outsourcing where focus lay upon Swedish SMEs that seek new partners in China. This raises strategic questions on what degree of control the outsourcing company requires. Captive offshoring is more often used in situations which require protection of core capabilities while offshore outsourcing is more flexible and open to the industry (Venkatraman, 2004). Nevertheless, both forms of offshoring have strong incentives to access valuable and unique knowledge. Research additionally states that companies tend to start with less controlled based offshoring strategies to later assign more control (Sako, 2005).

## **1.3 Sourcing in China**

An increasingly number of companies has moved business activities to China. The main reason is labor costs advantages but also the strategic access to global network has become an important issue (Sigrudson, 2004). Today, China is a global center for sourcing, mainly characterized by industrial networking and idea making. Research claim cost to be the main driver for companies to take the initial decision of why to offshore to China. However, it is not always the reason for companies to stay in China, instead an important issue is the location distinguished by mature and competitive markets (Alguire et al., 1994).

Furthermore, the cost of manufacturing differs between regions in China. The labor cost is lower in the west while mature city areas in the east including Guangdong, Nanjing and Shanghai are more expensive. This is known by companies, but going to the west also mean an increased risk and potential higher transaction costs (Liu, 2002). Along with more sophisticated markets in the east numerous MNEs started to move value adding activities to these regions which involve R&D, complex manufacturing and marketing (Trent and Monczka, 2002). Subsequently, SMEs follow this trend developed by MNEs' prior establishments. The long back establishment by MNEs is also the main reason to the intense increase of SMEs' moving activities to China last decade (Swedish Trade council, 2009).

When performing international sourcing and supply chain management, "the human factor" has decisive importance. It comprises culture, trust, language, personal relationships and human resources (Handfield and Nichols, 2004). In turn, "the human factor" may bring culture crashes, high coordination costs, communication difficulties and administrative barriers. Moreover, the costs of "the human factor" are believed to be equal to the production costs. Based on this any company performing sourcing in China should take this into consideration by carefully evaluating the different human factors (Liu, 2002). Part of "the human factor" is also the relationship between the sourcing company and the supplier. According to Gesteland (2002) relationship plays a vital role when conducting business in China and therefore affects the price paid and the cost. Implications from western companies' point of views are their habits of "deal" based agreements. In China on the other hand, it is more important to meet the suppliers face to face where negotiations continue over a longer period of time.

## **1.4 Vendor Selection**

One of the most important aspects in offshore outsourcing is vendor selection (Bhutta and Huq, 2002). In response, the purpose of vendor selection is to recognize the vendor's uppermost capabilities with reference to the sourcing company's requirements of consistency and competitive prices. Simplifying the term, vendor selection is a wide comparison of vendors that are evaluated by general set of criteria and determinations. Nevertheless, the degree of elements distinguished to examine possible vendors may differ as to the sourcing company's needs change (Kahraman et al., 2003). Characteristics of suitable vendors have to match the sourcing company's necessities to fit corporate culture and adapt to dynamic demands over time. In case that one vendor in

the supply chain does not provide what is required by the sourcing company, it could face severe consequences in terms of higher costs, lower quality and longer lead times (Robinson and Kalakota, 2004). Therefore, the sourcing company should evaluate strategic decisions in consideration to operational factors such as cost/price, quality, lead-time as well as the vendors potential to perform quality management practices, their process capabilities and management efficiency. Consequently, an appropriate vendor is selected on both quantitative and qualitative criteria under deliberation of possible risks, meanwhile the sourcing company make trade-offs between the different criteria (Lin et al., 2010).

## 1.5 Small and Medium-Sized Enterprises

Compared to MNEs, the role of SMEs in global economies has drastically increased last decades. The European Union value the SMEs' contribution towards innovation which both fosters increased competitiveness and put on employments. In turn, it is beneficial to be classified as an SME because the European Union supports these companies with various financial schemes. The European commission (EC) defines an SME from an employment level not exceeding 250 employees plus an annual turnover less than 50 million Euros (and/or a balance sheet not beyond 43 million Euros), summarized in table 1 below (European Commission, 2003).

Company Type	Employees	Turnover or	Balance Sheet Total
Medium Sized	<250	≤ € 50 million	≤ € 43 million
Small Sized	<50	≤ € 10 million	≤ € 10 million
Micro Sized	<10	≤ € 2 million	≤ € 2 million

*Source: EC, 2003*

Previous research claim significant differences in challenges and obstacles for MNEs and SMEs to expand (Psaila, 2007). Research state SMEs to face barriers in regards to manpower constraints, lack of certain capabilities and limited financial resources (Freel, 2000). A common result is failure to utilize economies of scale to the same degree as larger companies. It is both harder to access and gain the financial resources needed which leads to difficulties in meeting volume-based competition (Storey 1994). However, being an SME, one advantage over MNEs is the entrepreneurial sprits and flexibility to take shorthand decisions. From a perspective of promising opportunities SMEs are more easily grasped these while often overlooked by MNEs. For MNEs, this

is a result of bureaucratic functions and inflexible administrative systems (Gregorio et al., 2009). In addition, recent research argues globalization to enable SMEs to overcome size constraints when entering foreign markets through tapping into resources of others. In consequence, new opportunities for SMEs when acting global in form of network participation where new international capabilities can be transferred into their own organization (Gregorio et al., 2009).

## **1.6 Problem Description**

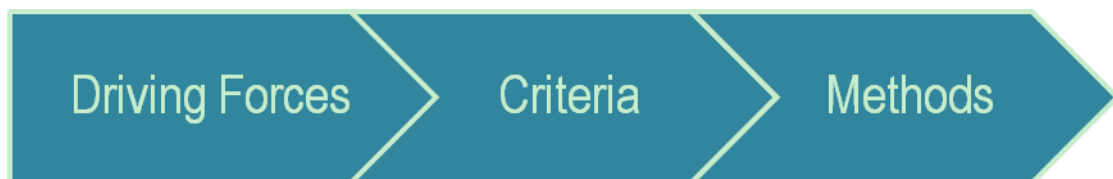
The largest part of research associated with offshore outsourcing activities deals with MNCs which have long experiences of moving activities abroad in search of additional advantages (Gregorio et al., 2009). Consequently, studying SMEs becomes more interesting due to the fact of lesser research on why these firms conduct international sourcing including vendor selection. McEvoy (2005) confirms research to mainly be focused on MNEs' global sourcing activities. In regard to SMEs, these sourcing activities presently gain attention among researchers. Agndal and Axelsson, (2004) further claim offshore outsourcing in China to call for more attention owing to theoretical and empirical studies.

However, current paper focuses on vendor selection which is a smaller topic than offshore outsourcing. The existing literatures on vendor selection generalize any company size, evidently exhibiting deficiency in research studies that focus on vendor selection by different firm size. Therefore, current paper investigates an unknown research area solely focusing on SMEs' vendor selection consistent with offshore outsourcing operations.

In addition to the lack of research among SMEs' vendor selection, researchers call attention to the phases behind the actual selection phase (de Boer et al., 2001). As well as current paper will look into the final selection phase it also studies the phases prior to this phase. First it investigates the driving forces to why the SMEs' offshore outsource. Second, it studies the origin of criteria based on formulation and qualification. In response, it provides a more holistic and deeper understanding on what grounds the final selection is built on. De Boer et al., (2001) further describe the accuracy of the vendor selected to be dependent on the phases prior to the selection phase. Hence, the decision makers need to have sound understanding of the phases prior to the final phase.

Therefore, by studying the three main phases behind vendor selection the authors strive

to enhance the understanding of how SMEs conduct these phases with implications of strategic decision making. The driving forces state the initial motives to why the case companies are spreading geographically by the use of offshore outsourcing. Study the driving forces provide a deeper understanding of the initial problem to why a geographical expansion is performed. Criteria describe on what grounds vendors are selected from and why criteria is included. Finally, evaluation methods concerns how companies prioritize among criteria. All three steps contain risks and are linked to challenges in finding the right solutions. The three phases are illustrated in figure 1 below.



*Figure 1: Phases of Vendor Selection.*

*Source: Based on interpretations of literature.*

By investigating the patterns of how the case organizations select vendors in China the authors have been able to test the strength between the three phases using an inductive study. Five interviewed SMEs were chosen appropriate to the European commission's classifications of SMEs. To further strengthen the results, three agents have been included. The agents have long experiences in offshore outsourcing and vendor selection from China. They represent several SMEs by helping them to access foreign resources. Thus, the agents' opinions provide the paper with an aggregated reflection undertaken by the SMEs.

## **1.7 Research Question**

By study the Swedish SMEs and agents the authors' want to cover a lack of research in how SMEs conduct vendor selection. Our research aspires to detect the driving forces that escalate in criteria formulation and evaluating methods. Hereby our main research question is:

**-How do western SMEs conduct vendor selection in China?**

Moreover, in purpose to more easily find answer to the main question we chose to decompose it into three interrelated questions:

- What are the driving forces behind the sourcing decision?**
- What vendor selection criteria have to be concerned?**
- What evaluation methods could be used?**

## **1.8 Disposition**

The paper starts with an introduction that gives a short description of the research background. Next a presentation of underlying arguments that leads to the research question. In a second chapter the literature review will be presented, it includes strategic decision making and the vendor selection cornerstones of driving forces, criterion and evaluation methods.

Chapter three will include the research methodology which in current paper gives answers to how various parts are connected. The research design and strategy will be considered whereas a plan of how to keep the red line through the paper is decided. We will argue for and against the methods included in the paper.

Chapter four reveals the empirical findings. It consists of eight studied cases implying how Swedish SMEs conduct vendor selections. All material is collected from interviews and provided by the studied cases.

Chapter five includes analysis of the empirical findings. The analysis is based on the three cornerstones of driving forces, criterion, and evaluation methods with implications from decision making. Analysis will moreover be based on the theoretical framework and empirical findings.

Chapter six is the last chapter and it will comprise an increased understanding of how SMEs conduct vendor selection. In the case we come across unknown findings used in vendor selection we will suggest further research. The overall aim of the paper is both to consist with findings to current literature but also to providing solutions for SMEs vendor selection.

## Literature Review

*The purpose of this chapter is to offer a comprehensive background of existing theories relating to vendor selection which serve as a basis for the further analysis. In addition to strategic decision making this section considers three broad guiding steps (driving forces, criterion and methods) that vendor selection decisions are built on.*

### 2.1 Introduction

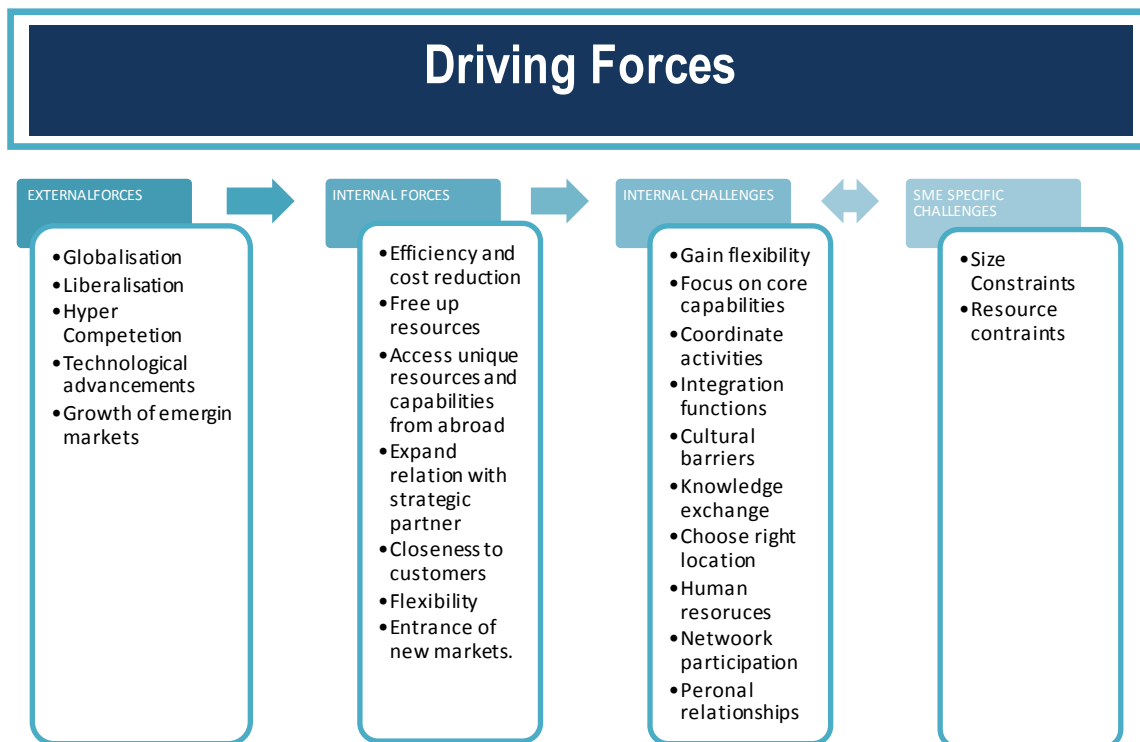
Vendor selection is one of the most important decisions for companies. Its strategic nature is both complex and critical to the sourcing company. Analyzing different suppliers entails large extents of complexity and uncertainty. This is mainly derived from intangible aspects of relationship and performance factors. Hence, it is necessary to base the vendor selection decision on right criteria associated to the outsourcing company. In other words, the vendors need to fit the strategy of the sourcing company. In turn, efficient decisions emerge from consideration of various models that include both rather simple scoring techniques to more multifaceted mathematical techniques (Sarkis & Talluri, 2002). Criteria and measures facilitated in those models need to fit all considered vendors and seek to mirror the company's needs comprising its supply and technology approach. A problem is the difficulty to convert these needs into constructive criteria. Needs are usually reflected as common qualitative perceptions whilst criteria ought to be detailed requirements, meaning quantitatively appraised (Kahraman et al., 2003).

The sourcing company can simultaneously as developing selection criteria set measures to make sure the criteria gain a practical nature. However, a high frequency of emergent criteria and measures overlap with the next phase of information collection. Collected information aim to provide insights to the number and sort of criteria required by the sourcing company. It is used to evaluate criteria as well as providing an overview of consisting data. In order to not imply irrelevant efforts, it is important to collect information with pre determined criteria and measures. It is moreover important that the criteria are suitable to the vendor selection planned effort. This mitigates the risk of information associated with obstacles such as difficulties to obtain it, intricate to

analyze it or that the time is too limited. Another problem arises when the sourcing company develops criteria suitable for certain products which are only suitable for a few vendors and product categories. Hence, an efficient way to find appropriate vendors is to adopt general criteria for all vendors which facilitate comparisons (Kahraman et al., 2003). To get an overall understanding of the complete process current paper decompose the vendor selection into the three previously mentioned categories of driving forces, criterion and methods.

## 2.2 Driving Forces

Discussing driving forces it is necessary to divide them into two groups, one focusing on an internal perspective whilst the other on an external perspective. Viewing the internal perspective it concerns individual firm specific characteristics contradicting the external perspective which is global forces that affect companies from the outside. Dynamic external forces in form of globalization, hyper competition, liberalized markets, growth of emerging economies and technological advancements both trigger and push firms to take part of global markets. Referring to changes in global driving forces companies tend to gain competitive advantages in accordance with their ability of adapting these changes (Narula & Dunning, 2000). The relationship between driving forces are summarized in figure 2 presented below. It mirrors the dynamics of external forces in business landscapes leading to firm specific motives and challenges among SMEs.





*Figure 2: Driving Forces in a Context of SMEs.*

*Source: Based on interpretation of literatures.*

### **2.2.1 External Forces**

Last decades had incentives for companies to undertake offshore outsourcing rapidly emerged. Globalization together with more sophisticated technological advancements and increased competition from emerging markets are external main drivers. Consequently, turbulent and competitive business environments lead firms to restructure part of their value chains with focus on core capabilities and flexibility. The new economical landscapes contribute to developments of new industries, traders of components and raw materials supported in addition to geographically spread network of business partners. In turn, liberalized market dynamics has opened up a worldwide human capital market much facilitating offshore activities (Lewin, 2005). Beside the dynamic of business landscapes an evident trend is increased specialization among companies to focus on core capabilities. This has resulted in new born industry clusters that countries compete to attract. A reflection of this is evident by more open markets in countries such as Brazil, China, India and Russia (Kedia et al., 2006).

### **2.2.2 Internal Forces**

From a vendor selection perspective, a company's motives are dominated by competitive price/cost, quality, lead-time and technology. In addition to these initial and main deciding aspects are increased flexibility and access of new capabilities being value enhancing aspects (Butta and Huq, 2002). The three most common motives why manufacturing companies precede offshore outsourcing are according to Brainard (1997) less expensive labor force, closeness to customers and entry to new markets. More than ten years later Gregorio et al. (2009) claim the most vital rationales for SMEs to source internationally are reduced costs and enhanced efficiency, free up resource in essence of lowest transaction costs, develop relations with strategic partner plus get access to foreign resources and skills.

### **2.2.3 Internal Challenges**

Nowadays business environment favor companies who are able to disintegrate value adding activities in favor to new competitive settings. Consequently, new strategic relationships with suppliers, partners and competitors lower both costs and risks

(Achrol, 1997). Kedia and Mukherjee (2009) argue disintegration to bring three different advantages. First, it provides opportunities to efficiently handle and reduce hierarchical governance based coordination costs. Secondly, it structures value adding activities where firms can focus on core capabilities and rearrange less value adding activities. Third, it allows modular structures which bestow flexibility and speed to dynamic changes in hypercompetitive environments. These three advantages are furthermore dependent on the firm's ability to analyze its own strengths and weaknesses. In contradiction to advantage brought by disintegration, new customer relations bring hidden costs, a certain quality standard might be promised by the vendor while reality results in inferior quality. Efficiency of sourcing company and supplier relationship are another aspect both difficult and important to evaluate and measure. Subsequently, putting into new contexts it addresses either the sourcing company or the vendor to be responsible for different part of the integration work (O'Farrell, Wood, & Zheng, 1998).

In parallel to the disintegration advantages firms also gain advantages by strategically chose the right location (Kedia and Mukherjee, 2009). Along with growth of emerging economies and liberalized national policies it brought skilled human resources. New developed skills in emergent markets are further backed up by excellent IT infrastructure and constant rising transport system. Maturates of today's communication facilities cheap and fast update no matter of business unit locations (Peeters and Lewin, 2006). As a result transaction cost is lower today meaning fewer resources needed to implement to offshore outsourcing (Lewin & Couto, 2007). The role of human capital on a global basis provides advantages in lower labor costs, more offshore skilled labor and continental time differences that support nonstop work (Kedia and Mukherjee, 2009).

Global sourcing also provides benefits associated with network participation. Theories state companies to move up the value chain through internationalization of sales. Tight and complex integration between processes force shared learning between the sourcing company and supplier. In turn, offshore outsourcing provides firms opportunities to better understand local customer preferences simultaneously as they access new and foreign markets faster (Murtha, 2004). Nevertheless, successful integration is based on well transferred tacit knowledge which according to Nonaka (1994) is a result of socialization. Tacit knowledge further function as a fundamental in bringing competitive advantages with skills gained from transferred and integrated knowledge. Knowledge creation takes place on organizational levels where the sourcing company and the vendor exchange experiences. Subsequently, deep rooted tacit knowledge makes it difficult for competitive firms to copy core capabilities if even possible.

## **2.2.4 SMEs Specific Challenges**

Large companies have long dominated offshore outsourcing and captive offshoring activities. In recent times it becomes more important for SMEs to also compete through global markets (Carmel & Nicholson, 2005). In response, researchers predominately put minimal attention to SMEs global activities, instead focus been on examining what make global MNEs successful. (Li et al., 2008). Although, a few exceptions where Scully and Fawcett (1994) pointed out offshore outsourcing challenges for SMEs. Their work put SMEs in a role not able to compete on the same premises as MNEs due to size constraints associated with limited capabilities. However, more recent research by Gergorio et al., (2009) link open markets to diminishing the barriers between SMEs and MNEs. It tolerates any company size to access global resources of quality products and lower prices. Shared goal for any firm are increased efficiency next to cost savings. The question whether SMEs will be able to utilize these goals are dependent on their ability to overcome their size and resource constraints.

## **2.3 Strategic Decision Making**

The basics of strategic decision making are to transform the overall scope and course of the company rather than decisions based on simple and regular approaches (Johnson et al., 2005). Schneider and De Meyer, (1991) identified three basic categories which has influence on the strategic decision process. The first category deals with the individual character of the manager and grouping dynamics. The second category concerns the internal organizational context. The third category emphasizes the environmental factors.

In vendor selection strategic decision making is claimed to be a problem (Fisher, 1997, Sucky, 2007). The problem originates in large numbers of criteria that must be considered and compared by the decision maker. Therefore the sourcing company aims to select the vendors on the most efficient criteria unique to the situation. By choosing the right criteria it provides the sourcing company with competitive advantages (Weber et al. 1991).

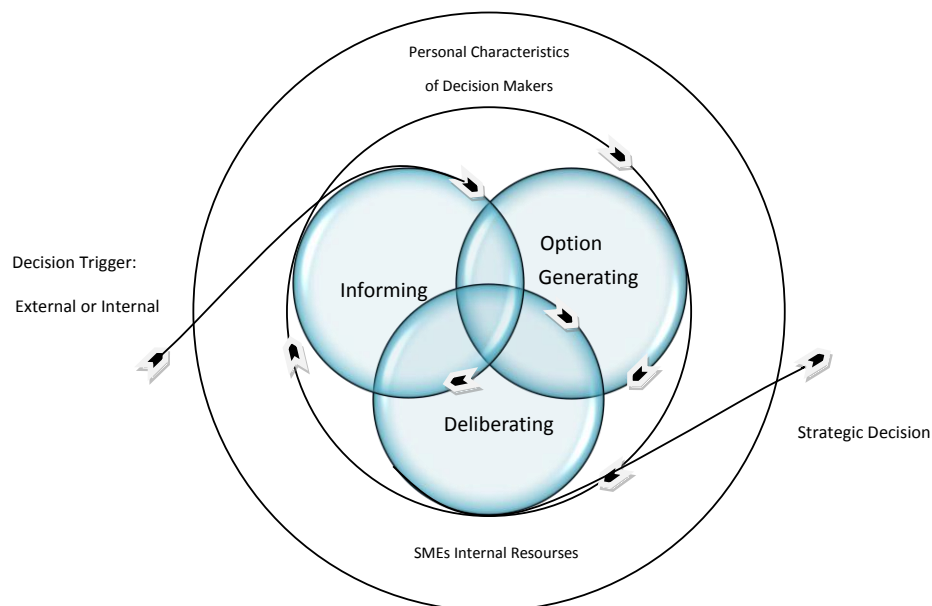
Strategic decision-making further differ between MNEs and SMEs in regard to accessibility of internal resources. MNEs' plentiful resources support collection of information, processing and to perform sophisticated interpretations. In contrast, SMEs normally don't access these resources to the same extent which leads to less comprehensive strategic decisions making (Barney, 1991). Hence, decision makers in SMEs more commonly base decisions on their own cognitive biases and decision

making heuristics (Busenitz and Barney, 1997). In addition, argued by Wang et al., (2010) are decisions taken based on experiences not usually effective. This is because of the dependence on biased judgment and lack of methodical analysis.

### 2.3.1 Phases of Strategic Decision Making

Lieberman-Yaconi et al., (2010) presented a model which clarifies the boundaries of decision making in SMEs. Decision making consists of three major interlinked phases of gathering information, generate options and deliberate alternatives. The SMEs enter the first phase by gather information once triggered externally or internally. An external trigger can for example be new technology or lower energy prices that facilitate faster and cheaper transport. An internal trigger, on the other hand can originate by influences from an appointment or a new skilled employee. The model moreover includes the decision makers' personal characteristic and SMEs internal resources. The personality of the decision maker has influence on the complete decision process, as well as SMEs internal, more or less limited resources will set limitation. Limitations are not only set to include capabilities, technology and financial strengths, but also the decisive support available in professional and social network built up around the SME. The figure 3 presented below strives to exploit increased understanding of the flows within decision making, main influential aspects and the interrelationship among the key variables.

**Model of SMEs Strategic Decision-Making**



### *Figure 3: SMEs Strategic Decision Making*

*Source: Based on the work by Liberman-Yaconi et al., (2010).*

The three phases of informing, option generating, and deliberating are referred to as cycles which take place in unison. The transparency of the decisions process further constitutes phases which overlap and interweave with each other. The informing phase consists of gathering information from a variety of sources. To mention a few they include the decision makers' gut feeling, business partners and internet. In other words, both the gathering and interpretation of information are largely influenced by cognitive biases of the decision maker. For instance, the decision maker might take a decision based from her own experiences rather than contacting consultants. The aim of the informing is to lay grounds to the next phase of generating strategic options. Nevertheless, it is common that new information is brought up during this phase and the process take one step back to the informative phase. Generating options can for instance include strategies on make or buy decisions or whether a sourcing company should have back up suppliers or not. The next phase of deliberating deals with the strategic options. Considering the alternatives may lead to a strategic decision as well as new obstacles can cause iterative patterns with need to gather additional information and generate new options (Johnson et al., 2003).

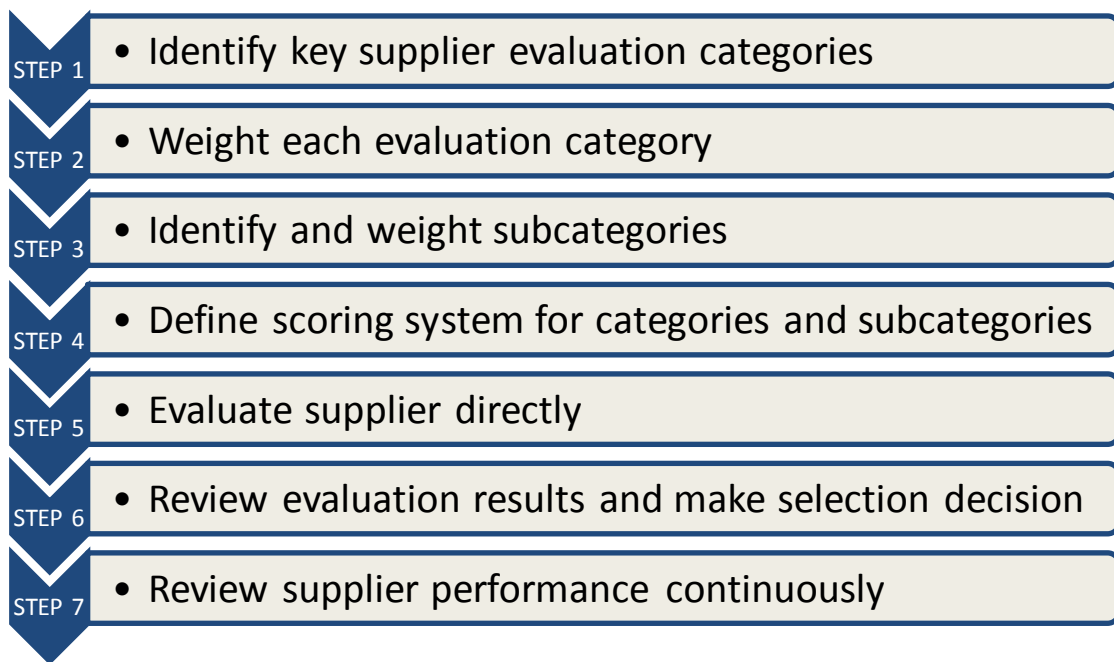
## **2.4 Vendor selection**

To select the supplier is a key strategic decision within offshore outsourcing that may bring additional advantages to the sourcing company. The right supplier has to meet the sourcing company on two dimensions. These include corporate culture and potential future needs (Robinson and Kalakota, 2004). There are many characteristics of the suppliers which affect the sourcing company. The most critical ones are the vendor's reliability, technical capability, financial steadiness and manufacturing ability. To increase the probability for success the sourcing company needs to tie solid relationships with its suppliers. The process in which the supplier is selected further has large influences of the continuous relationship. On the whole, supplier selection is a difficult job. A supplier may fulfill certain criteria, but analyzed deeper they fail on other criteria (Wadhwa and Ravindran, 2006).

### **2.4.1 Vendor Selection Step by Step**

There are various vendor selection models based on a step by step structure. They are

characterized by following pre-determined systematical instructions throughout the complete selection process. Consequently, the models help decision makers to not exclude essential aspects while processing each step. Bello (2003) presents a model containing seven steps. Step one to four focus on how to develop the survey. Step five and six deals with supplier audit and selection. The last step considers continues supplier performance reviews.



*Figure 4: Vendor Selection Step by Step*

*Source: Bello (2003)*

In the first step the decision maker selects which performance categories to incorporate. The most critical and obvious performance criteria a sourcing company considers are quality, price and delivery time. In the second step weights are assigned to each category adding up a total of 1.0. Including the weights it is important to seek flexibility where categories can be deleted or added. Third step focus on subcategories followed by a fourth step that aims to define the scoring system for categories and subcategories. In step five the sourcing company evaluates various vendors by ranking and comparing techniques. In step six the vendors' scores are analyzed and a selection decision can take place. Last step emphasize a continuous reviewing of the vendors. In other words, the vendor is controlled whether it provide the categories it was selected from (Bello, 2003).

In current paper step one to four is a result from the case companies' motives and methods incorporated to find suitable vendors. Step five and six on the other hand deals

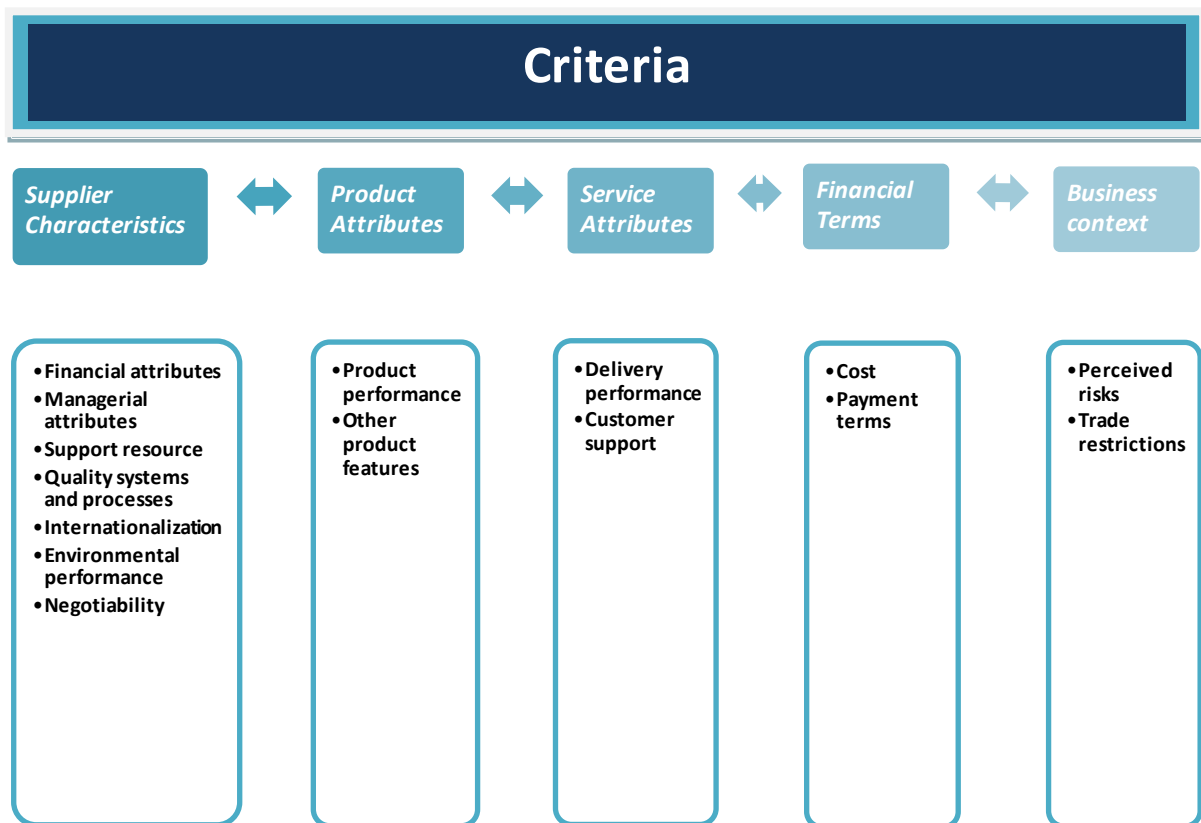
with ranking and prioritizations of criteria. The complete process of vendor selection is considered to companies' conducting offshore outsourcing. Their sourcing strategy seeks to detect benefits on international basis while core capabilities continue to be maintained in-house.

## 2.5 Vendor Selection Criteria

Dickson (1966) validated a list of 23 criteria in evaluating and selecting vendors. By reviewing the literatures published after 1966, Weber et al. (1991) found that net price (cost) was the most discussed criterion with regards to vendor selection, followed by on-time delivery and quality. Other criteria have also been utilized by both researchers and sourcing managers, including vendor's technical competence, service level, management capability and so forth. Similarly, price, quality, lead-time, technical service and delivery reliability are identified as the top five criteria used in vendor selection (Ha & Krishnan, 2008). Worth noticing that more and more firms add corporate social responsibility to their vendor selection criteria list, for example environmental considerations is no longer a meaningless term in vendor selection (Humphreys et al., 2003).

Many researches tried to explore various vendor selection criteria in a more structured manner. Vendor selection criteria could fall into one of seven categories: financial terms, quality assurance, perceived risks, service performance, buyer-supplier partnership, cultural and communication barriers, trade restrictions (Min, 1993). Bhutta and Huq (2002) classified the primary factors affecting vendor selection criteria into three categories: performance assessment, business structure capability assessment and quality assessment. While Kahraman et al. (2003) filed vendor selection criteria into four categories: supplier criteria, product performance criteria, service performance criteria, and cost criteria. Lin et al. (2010) summarized vendor selection criteria within the following four dimensions: delivery management capability, quality management capability, integrated service capability, and price. Similarly, Kokangul and Susuz (2009) discussed criteria under the following four categories: price performance, delivery performance, environmental performance, quality.

In order to cover all the aspects, the criteria are classified into five major categories: supplier attributes, product attributes, service attributes, financial terms and business context. Under each criterion category, there are several criteria. Those criteria could also be decomposed into various sub-criteria (attributes) that ought to be considered during vendor selection. The main multiple criteria and a number of sub-criteria relevant to international vendor selection are described in figure 4 below.



*Figure 5: Supplier Selection Criteria and Sub Criteria.  
Source: Based on interpretations of literatures.*

## 2.5.1 Supplier Characteristics

☉ **Financial Attributes:** Several researchers have noticed that financial stability of the supplier is a requisite for the long-term outsourcing performance. Financial stability could be a good indicator for the supplier's consistent performance. In other words, suppliers with solid financial position are more likely to maintain the quality and service level required by the sourcing company in the long term (Kahraman et al., 2003). Ahmad (2006) claimed that the financial soundness of suppliers ought to be considered as an important criterion due to the potential impact on client's supply chain. Besides economic stability, Zhang (2008) found the company size of vendor should also be considered owing to the fact that the smaller size vendors have, the riskier and less reliable they are.

☉ **Managerial Attributes:** Management stability of the supplier is also considered to



be an essential criterion in vendor selection. It is because the long-term relationship requires the consistent commitment from the supplier's management. Moreover, the supplier's management's ability of running the company also has influence on the level of quality, service and cost they are able to deliver (Kahraman et al., 2003).

● **Support Resource:** Kahraman et al. (2003) pointed out that suppliers should also possess adequate resources in order to meet the client's requirements. Such criteria include the supplier's facilities, IT systems, and the industrial infrastructure that support the supplier. Khan et al. (2011) divided the infrastructure into three elements :( 1) physical infrastructure (from both region and company perspective): energy supply, transportation, physical buildings, telecom, and so forth. (2) IT infrastructure (3) adequate resources including both hardware and software to support running the business. Professionalism, including the sub-criteria of expertise, accuracy, attitude and reliability, is also relevant to support resource criteria (Kahraman et al, 2003). Worth noticing that skilled human resource was also listed as one of the selection criteria according to research done by Khan et al. (2011).

● **Quality Systems and Processes:** In order to meet and maintain client's quality requirements, vendor organization ought to have standard quality systems and processes. The sourcing organization should thoroughly examine the potential supplier's quality systems in order to ensure that they can provide product or service with consistent quality (Min and Galle, 1991).The vendor organization's corporate culture, for example vendor's strong commitment for providing high quality products and for preventing quality failures, also has impact on this criterion (Min,1993). Sub-criteria may include "the quality certificate registration status (e.g. ISO9000), control procedures and quality assurance, complaint handling procedures, quality manuals, and internal rating and reporting systems" (Kahraman et al, 2003).

● **Internationalization:** Since technical standards usually vary from country to country, it is crucial for sourcing organizations to be aware of that in order to avoid potential misunderstandings. Products manufactured with different standards may need to be adjusted in order to be compatible or interchangeable with products in the targeting market. Thus, sourcing organizations may tend to have suppliers using either the international standards or the standards sourcing organizations are currently using. Whether or not the potential supplier has a good track record in doing international business (e.g. experience of doing business with western customers) is also considered to be an important criterion relevant to internationalization (Min, 1993).

● **Environmental Performance:** Due to the fact that the environmental pressure is

continuously increasing, international companies have to pay more attention to the environmental issues than before. Moreover, diffusing environmental management standards along the supply chain is considered as a fundamental approach to enhance the environmental performance (Walton et al, 1998). Thus, sourcing company ought to integrate environmental criteria into vendor selection process. Humphreys et al. (2003) proposed an environmental framework for incorporating both quantitative and qualitative environmental criteria to the vendor selection process (Seen in appendix). Quantitative environmental criteria include the environmental costs which further can be decomposed into pollutant effects and improvement. Qualitative environmental criteria consist of five elements: management competencies, green image, design for environment (recycle, reuse, disposal etc), environmental management systems (e.g.ISO14001 certification) and environmental competencies.

● **Negotiability:** The obstacles of effective negotiation could be divided into two groups: the culture-related factors and the firm-specific factors. The culture-related factors often reflect on the differences in languages, business norms, ethics and traditions. In order to ensure the effective communication and negotiation with the supplier, the sourcing organization ought to take cultural similarity, ethical standards and Electronic Data Interchange (EDI) capability into consideration. The firm-specific factors mainly refer to vendor's negotiation flexibility (Min, 1993). Mutual interest and trust are considered as the foundation of negotiation flexibility in the long run. The capabilities of handling the conflicts of interests between both parties are proven to be helpful in fostering mutual trust (Ndubisi, 2011). Sourcing organizations should thoroughly investigate the supplier's negotiability flexibility when evaluate potential suppliers. Otherwise, long-term relationship will be undermined if the vendor remains stubborn during the negotiation process (Min, 1993).

## 2.5.2 Product Attributes

● **Product Performance:** Sourcing organizations have to remake their outsourcing strategies, not only to utilize the cost advantages but also to benefit from the improved product performance that offshore vendors provide under conditions of globalization and developments in communication and transportation technologies (Hagel and Brown, 2005). In that sense, sourcing organizations should examine the important functional characteristics and measure the usability of products by using product performance criteria. Moreover, since various purchased products have different usages due to their positions in the supply chain, sourcing organizations should inspect conformance to specifications accordingly. If the purchased product is designed for the

end user, compatibility, durability, functionality, maintainability, reliability and quality needed to be included in the product performance criteria. If the purchased products are the components of final products, then sourcing organizations should pay attention to the product performance criteria such as quality, testability, manufacturability, compatibility, and end-use performance (Kahraman et al, 2003).

● **Other Product Features:** Since the environmental care has brought more and more attention, sourcing organizations may want to have environmental friendly features for their purchased products. Recycled product content and ergonomic features could be the evaluation criteria for this area. Other criteria may include the current stage of the technology life cycle and future market trends (Kahraman et al, 2003).

### 2.5.3 Service Attributes

● **Delivery Performance:** Kokangul and Susuz (2009) classified delivery performance criteria into four categories: (1) consistency in meeting delivery deadlines, (2) order fill rate, (3) flexibility in meeting client's special delivery requirements, (4) perfect (quality) delivery rate. Similarly, Lin et al, (2010) emphasized the delivery performance on the following three dimensions: (1) accuracy of delivered contents; (2) on-time delivery; and (3) delivery adjustment flexibility. Worth noticing that, the transportation delay, which has been considered as a major obstacle of global sourcing, can undermine the implementation of just-in-time strategy. Therefore sourcing organizations should investigate not only the potential suppliers' capabilities but also their commitments for providing on-time delivery services on a consistent base (Min, 1993).

● **Customer Support:** A sourcing organization could evaluate the fitness of supplier's customer support by examining the following criteria: accessibility, timeliness, responsiveness, dependability. Lin et al (2010) summarized the customer support criteria under the following three dimensions: (1) response-time for customers' request (2) efficiency for technical support (3) capabilities of meeting customers' special requirements. The technical assistance should be factored into the supplier selection criteria owing to dramatic changes in technology clock-speed and product lifecycle (Min, 1993). Khan et al. (2011) indicated that what level of technical support the vendor organization could provide is always an eager factor for sourcing company to know. A sourcing organization needs technical support from their suppliers in order to consistently provide high quality product/service and to promote the developments and improvements. Moreover technical criteria weight more when the client organization is

on the track of developing a new product (Kahraman et al, 2003).

#### **2.5.4 Financial Terms**

● **Cost:** Since “cost-saving” is ranked as the most common driving force for offshore outsourcing, cost criterion can be considered as one the most important criteria in vendor selection. However, the notion of “cost” should be clarified as an accumulation of the total purchasing cost rather than the price of certain products (Sinha et al. 2011). Furthermore, besides the easily noticed cost such as purchase price, transportation cost, documentation cost and tax, there are some hidden costs which should also be considered (Kahraman et al, 2003). According to transaction cost theory, the hidden costs refer to the operational expenses incurred in managing the transaction, such as in finding potential suppliers, managing relationships and assessing the impact of the outsourcing decisions (Kang et al., 2009). Owing to the fact that transportation and insurance costs usually account for a large amount of the total operational costs, it is important for sourcing company to include the favorable freight terms into the evaluation criteria (Min, 1993).

● **Payment Terms:** In offshore outsourcing, advance payments are normally required by the vendor organizations before commencing work. However, this term could hinder sourcing organization’s business due to the fact that the capital is normally tied up. For example, in order to fulfill such a provision, the sourcing organization’s capital could be tied up for the sake of getting a letter of credit from the bank. Therefore, terms of payment should also be one of the evolution criteria in vendor selection. Sourcing organizations should assess suppliers’ acceptance of favorable terms of payment such as open accounts and sight drafts (Min, 1993).

#### **2.5.5 Business Context**

● **Perceived Risks:** A wide range of risks are posed in vendor selection. Some of them, such as operational risks, are inevitable byproducts of the process of offshore outsourcing (Herath and Kishore, 2009). Sourcing organizations should be aware of the overall risks and try to minimize the potential damages of unbeneficial risks by factoring the perceived risks into vendor evaluation criteria. In international sourcing, perceived international risks mainly consist of geopolitical risks, risk of intellectual property (IP) loss, and financial risks. Labor unrest, political instability, and the accompanying domestic or international regulatory changes are the essential elements of geopolitical risks (Kahraman et al, 2003). IP protection laws and also the enforcement

of those laws in vendor's region have huge impact on the IP risks (Herath and Kishore, 2009). Currency exchange rate fluctuation is the major component of financial risks. Since this kind of risk can increase transaction costs dramatically, sourcing organizations should evaluate it carefully during the vendor selection process (Min, 1993).

☉ **Trade Restrictions:** It is undeniable that government policies regarding exports also have influence on the final performance of the outsourcing activities. Another restriction is related to tariffs and customs duties.

## 2.6 Vendor Selection Methods

Existing literatures include various evaluating vendor selection methods which have to be compared in presence of each single selection. Hence, it is important to understand the nature of these methods and in which situations they are most suitable. Consequently, the goal is to reveal the most sufficient selection criteria unique to each company. To widen the perspective, used methods can be categorized into three groups. The first group consists of linear weighting models which rates vendors on several criteria which then come together in single scores. The second group considers mathematical programming models which evaluate criteria from a quantitative perspective. The third group includes models that seek to measure all costs related to the vendor selection in financial units. These three groups are found in the figure 5 (Vendor selection methods) below.

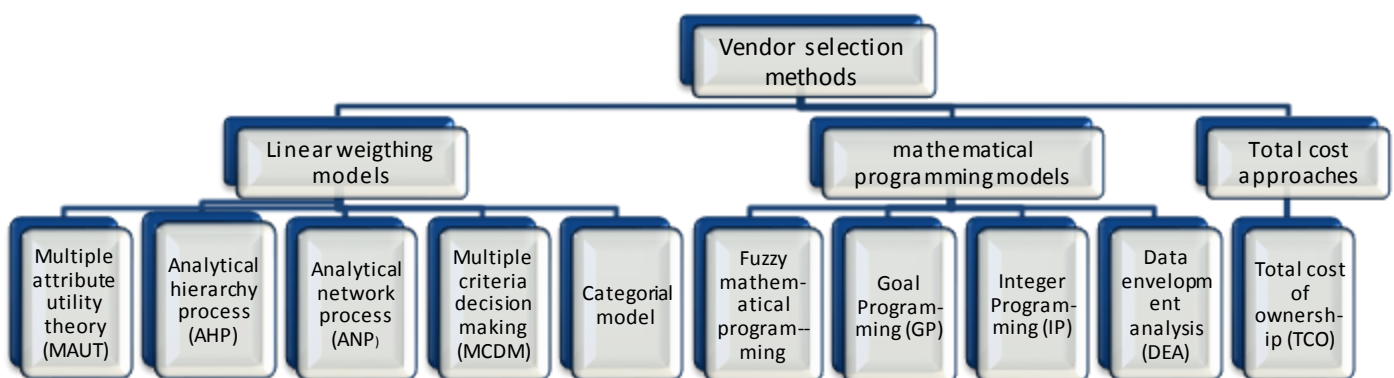


Figure 6: Vendor Selection Methods.

Source: Based on interpretation of literature.

☉ **Multiple Attribute Utility Theory (MAUT):** United its design which considers

various conflicting aspects are MAUT an efficient technique when selecting a vendor on international basis (Von and Webber, 1993). Accordingly, MAUTs capability to deal with conflicting criteria brings decision makers solid grounds to formulate sourcing strategies. The strategies further provide guiding into what grounds of competitiveness international suppliers are considered (Bhutta and Huq, 2002). The MAUT approach also supports managers with back-up scenarios where for example sudden changes in the company policy change direction of the company (Von and Weber, 1993). More precise, MAUT enables managers to organize complex problems into reviewable hierarchies where collections of quantitative and qualitative features are evaluated next to risks and uncertainties. The technique moreover deals with decisions allied deterministic and stochastic approaches. Decomposing MAUT into a step by step approach it starts with identification of problems and goals. Next step is to categorize and prioritize the attributes which affect decision outcome. After underlying factors are analyzed the decision makers' utility function are developed. In the case of uncertain relationships the utility score will be determined by appropriate probability distributions. To perform a sensitivity analyze the overall utility score need to be calculated and ranked. (Min, 1993)

● **Analytical Hierarchy Process (AHP):** AHP is described as a decision-making method based on prioritization of alternative multiple criterions. It allows decision makers to organize complex problems into integrated levels or set of hierarchies, thus suitable in multifactor decision making (Ghodsypour and O'Brien, 2003). The structure is further build around scores and weights in regard to different criteria considered being managerial issue. Assigned the best weighted score into management judgment provide basis for selecting an ideal supplier (Bhutta and Huq, 2002). In search of highest weighted scores the model accomplishes pair wise comparisons between criterions. In turn, it assists decision makers to make trade-off among criterion leading to more efficient decision making (Render and Stair, 2000). However, it is rather difficult to provide precise numerical estimations to score performances and criteria weights. This means that the AHP approach deal with ambiguity in supplier choice (Masella and Rangone, 2000). Instead, the buyer gives qualitative directions of how criteria should be ranked plus verbal explanations about single criterion importance (Boer et al., 2001). One key aspect of the AHP model is the way it structures factors on a hierarchical basis. Continuously, each hierarchical level is analyzed from the use of its different factors which are compared pair-wise. AHP is also a flexible tool able to lodge both evaluation criteria as well as intangible factors. Subsequently, it includes room for characteristics in view of intuitive, rational, qualitative and quantitative approaches. Furthermore in the process of selecting a vendor the model identifies three levels of hierarchy: Firstly, the goal of how to choose the most suitable supplier; secondly, the

criterion such as cost, product and service quality etc.; thirdly, the alternatives of suppliers (William et al, 2001). Nevertheless, the AHP model has surprises as it can contain uncertainties along with subjective information. Along time it increases the users rationally in form of new insights, intuition and experiences (Tahriri et al., 2007).

● **The Analytical Network Process (ANP):** ANP is developed to circumvent difficulties derived from dependence and feedback amid criteria (Yu and Tzeng, 2006). Hence, the model's result is closely linked to real practices where it is able to overcome obstacles due to hierarchical structures (Lee and Kim, 2000). ANP has further been exercised within various areas such as optimal scheduling, project selection, product planning and strategic decision making (Sarkis, 2003; Momoh and Zhy, 2003). The models advantages lay in its capability to not only analyze quantitative and qualitative data but also emphasize problems amongst interdependency and feedback surrounding criteria. To evaluate decision making problems consequent to the ANP model three steps are commenced. First, a network hierarchical structure has to be built. Second, the different factors of every hierarchy have to be calculated due to their weight. Third, including the complete hierarchical structure the complete weighting is calculated. (Lin et al. 2010)

● **Multiple Criteria Decision Making (MCDM):** Most commonly, decision problems contain more than one criterion. This brings managerial challenges as how to select the most suitable supplier in accordance to different characters of criteria. Based on this is MCDM helpful though it provides strong foundations to more accurate selections. The essentials of selecting effective suppliers derive from global competitive environments where advantages come from using core capabilities efficiently (Liu and Hai, 2005). Hence, selecting the right supplier means lower costs and improved competitiveness (Saen, 2007; Kasirian, 2009). Lin et al. (2010) discusses two methods which combined are able to prioritize among multiple criteria. First Interpretive Structural Modeling (ISM) where a relation map is created to analyze criteria in regard to their interrelations. In a next step the map connects to the ANP method where each supplier criterion is weighted. The calculated criterion weight in ANP is a foundation to overcome the difficulty of interdependence and feedback among single criteria. Subsequently, the overall criteria scores, for each supplier, provide basics to structure selection decision accordingly to prioritized rankings.

● **Categorical Model:** By weighting sufficient criterion the categorical model is one of the simplest methods to compare vendors. Its nature is characterized by low

complexity, quick to use, easy to understand and not expensive to implement (Petroni, 2000). In comparison to other methods, the categorical model is based on a qualitative approach. It considers historical data referred to the sourcing company's experience where present and known vendors are evaluated on a range of set criteria. More precise, the evaluation includes categorizing of the vendors performance as positive, neutral or negative. When a vendor has been rated on all criteria, the sourcing company provides an overall rating by marking one of the alternatives. In other words, the vendors are classified into one of the three previously mentioned categories (Timmerman, E., 1986). A problem conducting the categorical model is its sensitivity to influences by recent events resulting in much subjectivity, consequently increased risks for imprecise results (Petroni, 2000).

● **Fuzzy Mathematical Programming:** Supplier selection is often based on mathematical solutions, some of these has tendency to be fuzzy. Ohdar and Ray (2004) developed a method that aim to measure the supplier's performance by adopting fuzzy evolutionary mathematical set of rules based on genetic algorithm methodology. Lin and Chen (2004) constructed a fuzzy decision making structure which seek to answer the most applicable selection of strategic supply chain alliance in case of limited evaluation resources. Another fuzzy decision making method was presented by Chen et al. (2006). It deals with the problem of choosing the right supply chain system. Conclusions were sought from linguistic values which addressed ratings and weights amongst criteria. The ratings were furthermore evaluated in trapezoidal or triangular number, meaning a hierarchy of decisive multiple criteria making. Fuzzy sets of theory lay ground to the decision making of what supplier to select in the supply chain system. When a supplier is selected from preferences of who is more ideal a closeness coefficient determine a ranking for all suppliers. The ranking includes simultaneously both positive and negative attributes whereas a final rank is made.

● **Goal Programming (GP):** GP is consistent in many models though it is closely related to MCDMs issuing multiple and often conflicting criterion. Kumar et al. (2004) developed a fuzzy goal programming model concentrating on imprecise settings of goals. Their work is further based on three primary goals: (1) Minimization of the net cost. (2) Minimizing of net rejection. (3) Minimizing of net late deliveries in regard to the constraints of the buyer's demand, purchased item value, budget allowance to individual supplier, the suppliers capacity and quota flexibility. Hajidimitriou and Georgiou (2002) also presented a quantitative model based on the GP technique. It makes use of appropriate criteria to estimate interesting suppliers in aspiration to find



the optimal supplier. Only five factors in a supplier selection problem result in 120 priority combinations, a process which is both costly and inefficient.

● **Integer Programming (IP):** IP is used to deal with multiple sourcing problems. Ghodsupour and O'Brien (2001) constructed a method focusing on integer non-linear programming; the method takes into account the overall logistic cost, net price, stock keeping, shipping and ordering costs. Another example of IP was presented by Talluri and Baker (2002). Their model builds on a multi-phase geometric programming approach. Focus is to find effective supply chain design; more precisely it deals with a various set of multi criteria efficiency.

● **Data Envelopment Analysis (DEA):** DEA is a framework that is used in many industries in creating production functions in form of multi-input and multi-output. The goal of the analysis is to determine the most efficient producers, hence suitable when evaluating suppliers (Berg, 2010). Weber et al. (2000) contributed with such an approach that investigates the number of suppliers to utilize in a purchasing situation. A multi objective programming (MOP) bring solution to what supplier-order quantity preferred followed by a multiple criteria evaluation in DEA seeking maximum efficiency of preferred supplier. Forker and Mendez (2001) used the DEA approach for bench mark suppliers, seeking to identify the most efficient ones in term of quality management programs. Talluri et al. (2006) presented data envelopment approach that looks upon suppliers multiple performance measures characterized by uncertain nature. However, the above mentioned DEA ways to select suppliers does not incur supplier ranking in regard to volume discount environments. Although Farzipoor and Zohrehbandian (2008) contributed a model ranking the efficiency by supplier according to volume discount, it lacked in the sense of infeasibility problem. Farzipoor Saen (2009) did one year later present a model that seeks to select the best supplier due to fundamental data aligned volume discounts although the model did not include ranking of most efficient supplier. In other words, the literature does not include a model which simultaneously deals with efficiency ranking aligned presence of volume discounts.

● **Total Cost of Ownership (TCO):** The TCO model looks beyond the procurement price to include other aspects related to the overall procurement costs. It is a well suitable model to use when evaluating a supplier. In general terms, the model is orientated to detect all quantifiable costs that can occur in a supplier relationship throughout a purchased items life cycle. However, distinctions can occur between pre and post transaction costs (Ellram, 1993). The process of TCO has its starting point in considering price of each individual supplier. When the price is detected the process

continues with identifying essential factors related to the decision of what supplier to continue with. Preceding the process each critical factor is translated to incur cost components that will be added against price formulas for a later stage. Nevertheless, the single suppliers' price is added a penalty for every factor suitable to single suppliers' performance (Harding, 1988). In more precise terms, the quantifiable costs of TCO in relation to delivery, service and quality express the unit price as beneficial or non beneficial to the buyer. Comparing essential non numerical criterion with the unit price opens possibilities to rank each supplier in regard to price competitiveness (Smytka and Clemens, 1993). Thus, only seeing to quantifiable monetary perspective, it is a great likelihood that the supplier with the lowest total cost will be chosen by the buyer (Porter, 1993).

## Research Methodology

*This chapter describes and argues which methods have been used and about the structure of how the overall research is performed. The first paragraph explains the research strategy followed by research design, research method, data analysis and research quality.*

### 3.1 Research Strategy

Bryman and Bell (2007) state the researchers' strategy to depart from two distinctive paths, whether incorporate a qualitative or quantitative approach. Patton (1985) describes qualitative research in the essence of understanding a situation in its uniqueness as part of interacting contexts. The analyses strive for a deeper understanding where the researcher needs to understand and reflect participants' role in the context. It is much about understanding human behavior and what trigger certain behaviors. Bryman and Bell (2007) further point out two important concepts within the qualitative approach in Interpretivism and Constructivism. Both imply to generate theory on basis of in-depth research. Interpretivism distinguishes humans from social science and though research is scientific, it may not be possible to gather measurable results. Therefore it is important to consider the social context and treat research environmental perspectives differently. The other concept of Constructivism explains the notion of social worlds as an emergent outcome of interactions between different individuals. Hence, an importance to understand forces in the social world which fully understood increase quality of interviews and observations meaning fair and concrete descriptions. Qualitative research further usually reflects the relationship between research and theory. Subsequently, theories can be extracted by inductive research methods (Bryman and Bell, 2007). In addition, Merriam (1998) emphasizes results from case studies to generate basics for further research as well as it influence practices and policies.

According to the nature of current paper, not calling attention to numerical data, qualitative research is a more applicable method. Yin (2009) claim qualitative research

to explain a set of decision and to why they were taken, implemented and to what result. Consequently, current paper builds on in-depth semi structured interviews where the authors approached both SMEs and agents, and their firm specific characteristics that vendor selection builds upon. The goal is to generate an understanding how decision makers' pursue driving forces, criteria and evaluating methods. The semi structured interviews further enable the case organizations respondents to interpret and construct the social world due to their specific social context. But also the researchers can interpret and construct perspectives from their social world and experiences. Therefore, a qualitative approach needs to be as objective as possible where concepts such as validity and reliability constantly are overlooked.

The current paper moreover takes an inductive approach though it incorporates an unknown research area. Hypothesizing generalized theories about vendor selection is probably not the most efficient though it does not include SMEs. Instead, current research accentuates to find insights to the complexity of the SMEs three phases of vendor selection. Hereby, an inductive method increases the possibilities to create generations of empirically based data.

## **3.2 Research Design**

When the research question is set and research strategy constructed, a next step is to develop the research design. The research design provides the study structure though it connects the research question to solutions (Merriam, 1994). The research design differentiates itself into dimensions of how it is explored, explained, described (Yin, 2009). Current paper takes its shape of an explorative and describing multiple-case study.

### **3.2.1 Case Study Research**

Yin (2009) explains the importance of case study design to link the logics of a framework in order for the researcher to define questions, gather applicable data and generate conclusions. In other words, the framework provides linkages between research questions and conclusion. The frameworks logics are decomposed into: (1) research question, (2) propositions, (3) component analysis (4) and the frameworks ability to link data to propositions and measures to facilitate understanding of the findings.

Case studies consist of in-depth research of one or more cases inquire evidence across several sources. The study can include a person, an event or an organization and

departure from both single and multiple perspectives. Associated to the number of sources included in a multiple-case study it is considered to bring more reliability and robustness to the results (Yin, 2009). Multiple case studies furthermore have a comparative nature that seeks to identify similarities and dissimilarities available among studied cases. In response, it brings foundations to theoretically analyze empirical findings against the multiple case studies (Bryman and Bell, 2007). Given that the case companies are SMEs it is important to find out in what aspects these companies are interlinked. Identify similarities and dissimilarities bring insights to where current literature is applicable against the case findings. In other words, the external validity will be strengthened by the use a multiple case studies (Merriam, 1998).

Case studies furthermore distinguish into three types, namely descriptive, explanatory and exploratory studies. The dissimilarity between them is how the researchers' approach questions of "what", "when", "how" and "why". The "what" and "when" questions are characterized to be explorative that relates to case studies, surveys or experiments. The "How" and "Why" questions on the other hand, reflect a descriptive nature which implies studies over time (Yin, 2009). Current paper uses a multiple-case study that investigates Swedish SMEs vendor selection in China. Hence, the research approach represents the "How" and "Why" questions in sense of emerging driving forces. The "What" question represents the selection of criteria and methods been used. Ghuauri (2004) further refers the nature of case studies to be suitable when study different countries and cultures. Case studies help the researchers' to gain more precise and appropriate data while linked to increased understanding.

Eisenhardt (1989) argues for case studies usability though it provides the researcher with a method that detects new insights into old theories including strength of testability, validity and novelty. Current papers nature focus to review generalized vendor selection theories. It is followed up by deep and insightful interviews with the case organizations. Accordingly, current findings will be tested against generalized vendor selection theories. The aim is to contribute with new theory building evidence.

### **3.3 Research Method**

Research methods submit how to collect data and what techniques applicable for this based on the research design. It represents the structure that guides implementation of research methods and the research of consequent data (Bryman and Bell, 2007). Saunders et al. (2000) confirm the data collection process to be determined by two main paths. The first path includes sources of primary data which is the non existing data collected by the researchers, in current study the multiple-case study. The second part of

sources is secondary data which includes data already collected by previous research, in current study academic literature and material from the case companies.

Numerous data collecting methods can be employed throughout case studies. Marshall and Rossman (2006) state four methods suitable qualitative studies: (1) Participant observation (2) Direct observation (3) Interviewing (4) Study documents archives and records. Yin (2009) continuously stresses the importance of including as many methods as possible to enhance the reliability. Yin (2009), moreover states three techniques to increase the overall accurateness of the study. Firstly, use of many sources. Conducting many sources in each single case study means more accuracy followed by increased trustworthiness. Secondly, it is important to organize information. A good way is creation of data bases. Thirdly, create a chain of evidence. By numerous of evidence the picture will be clearer and it will be possible to move to the next step.

Accordingly, current papers nature incorporates a multiple-case study which mainly is based on interviews. The EC classified SMEs interviewed have in common that they all incorporate offshore outsourcing in China and have at least five years experience. However, only focusing the study on SMEs risk to miss essential information, therefore current paper includes the agent's role. Though SMEs many times lack capabilities they are dependent on agents to make the middle work which consists of evaluate potential suppliers. The criteria for selected agents are five years experience, SMEs as clients and subsidiary in China.

### **3.3.1 Interview Guide**

Interviews are one of the most important methods in collecting useful information when performing a case study. It emphasizes to recognize where the topic departure from. To open up the underlying factors behind respondents experiences and investigate her existing world prior to scientific clarifications (Kvale, 1996). It is further said to be three types of interview structures; the open interview, the semi-structured interview and the structured interview. Open interviews are characterized by an interviewer that attempt to grasp the essence of the respondent's social world. The respondent is encouraged to freely answer the questions in accordance to her own beliefs, experiences and thoughts. The opposing forms of structured interviews contain direct questions that usually hold set alternatives for the respondent to choose from. Hence, pre determined questions that keep strict to the topic and are directed to revile quantitative data (Lantz, 2007). Semi-structured interviews on the other hand are according to Yin (2009), more of a guided conversation in contrast to clear structured interviews. More precisely, the interviewer follows the main topic although the respondent is allowed to answer freely. The interviewed individuals in current paper have been decision makers with full

insight into offshore outsourcing operations. The interviews took around one hour and some were performed face to face while others over telephone. They are summarized in table 2 below.

**Table 2: Information Details**

Company Type	Company Name	Location	Respondents Name	Respondents Position	Interview Type
SME	Kominox	Gothenburg	Anders Nilson	Co-Founder	Face to Face
SME	Roca	Tyresö	Lisa Plahn	Logistic Manager	Telephone
SME	Cellwood Machinery	Nässjö	Bengt- Gustaf Tummalid	Purchasing Manager	Telephone
SME	Company D	Gothenburg	Anonymous	Department Manager	Face to Face
SME	Metallkompanient	Åkersberga	Tuija Päivi Birgitta Landréus	Co-Founder	Telephone
Agent	Linc Sourcing	Alingsås	Lennart Rosell	Co-Founder	Face to Face
Agent	Vantage	Alingsås	Ingemar Björnier	Managing Director	Face to Face
Agent	Swedish Trade Council	Hong Kong	Tianhau Liu Penny Peng	Consultants	Telephone

To support the multiple-case study a semi structured interview guide was used. In turn, causality among the studied cases has been approached and delimitation kept. Nevertheless, the qualitative research support deeper insights and may lead the researcher to take different directions. In addition, the flexibility to switch towards more open questions provides the study increased value. To accomplish this, a protocol was developed in order to keep consistency among respondents. The questions started in a structured, rather narrow way, concerning general information about the case organization. Next, it moved on to more open questions whereas driving forces, criterion and methods been discussed. After discussing each phase of driving forces, criteria and methods the respondent answered several specific questions.

### **3.3.2 Perform Quality Interviews**

Conducting qualitative research a challenge for the interviewer is to preserve high quality throughout the interview. First, it is essential that the interview is performed without any leading questions besides a language that under all circumstances has to be understandable. Secondly, it is easy for the interviewer to miss valuable fact owing to the large exposure of information for a limited time. To mitigate the risk of losing information a tape recorder been used when approved by respondents. Also, the interviews have been transcribed directly after each interview was performed. Carry out direct transcript is a method to reframe questions and enhance current interview protocol for succeeding interviews. It also brings value since it capture aspects of tone of voice, body language and expressions which are part of qualitative studies (Bryman and Bell, 2007).

Nevertheless, before to start the interviews it is important to perform a literature study. Herby, an increased likelihood that the right questions are asked as well as valuable interview time is saved excluding unnecessary questions (Lantz 2007). To increase the quality of the interview structure the authors decided to base it on five criteria provided Kvale and Brinkmann (2009).

- The range of unintended, rich, detailed, and significant answers from the respondent.
- The coverage of lengthy answers from the respondent and precise questions of the interviewer.
- The degree to which the interviewer decide to follow and illustrate the meanings of the major characters of the responses.
- The interviewer aim to confirm absorbed understandings of the respondents answer.
- The interview has to be self-reported, in other cases are additional clarifications needed.

### **3.4 Data Analysis**

Yin (2009) stress that every case study should contain a strategy which implies clarification of what to analyzes and why it is analyzed. The current study had a clear stated strategy of what to test. However, it became difficult though the findings were not coherent with literatures. As existing theories do not separate companies' vendor selections in regard to company size. Bryman and Bell (2007) mention three general strategies of how to analyze qualitative data, these are; analytical induction, grounded



theory and narrative analyses. Out of the three strategies is grounded theory said to be the most prominent approach. It implies theory created from systematically collected and analyzed data. In other words, the method connects aspects of data collection, analysis and concluding theory to each other. Current paper conduct the data analyses based on grounded theory. A tool used in grounded theory is coding, it help the researchers' to separate a large set of data into components (Bryman and Bell, 2007). To make the coding process smoother, the interviews performed in current study are based on a protocol including the three main phases of vendor selection. The respondents first answered questions in regard to the driving forces of why offshore outsourcing been undertaken. Continuously, respondents answered questions in regard to criteria and evaluation methods. Adapting to this enabled the authors to systematically structure the data along performing the interviews and later compare the case studies.

## **3.5 Research Quality**

Throughout the interviews the respondents have contributed with their own reflections as well as answered specific questions. To increase the validity and credibility of current qualitative multiple-case study the authors chose follow academic suggestions implied external validity, internal validity and reliability.

### **3.5.1 External Validity**

High external validity of a case study typically implies that research findings easier can be used in another situation. Generally speaking, a multiple-case study increases the external validity and the likelihood of analytical generalizations (Merriam, 1998). All interviews have further, in accordance to respondents' approval, been tape recorded for increased validity. Also an interview guide been used to ensure all answers being kept within the delimitations to the research question. Moreover all correspondence with respondents has been in English in order to reduce the risk of translation interpretations.

### **3.5.2 Internal Validity**

The internal validity has been increased though current paper collected information from both agents as well as SMEs. Also, the authors presently follow three Swedish SMEs in their ongoing process of selecting suppliers by the help from an agent. The three Swedish SMEs will take their final decisions of what suppliers to collaborate with in end of May by visiting factories in China. A business trip the authors will participate

on and observe the final decision on place simultaneously as well as we studied these companies from the beginning. In other words, an overall increased validity to the final results though the authors gain insights from a live case including internal documents and reports. However, in regard to the nature of current paper, including a descriptive and exploratory approach, it faces less threat to internal validity whether if the study approach would have been explanatory. On the other hand, claimed by Merriam, (1998) is internal validity essential to provide reliability.

### **3.5.3 Reliability**

Reliability concerns the degree to which research findings possibly can be repeated or replicated (Merriam, 1998). Adapting a qualitative research approach brings difficulties in regard to external reliability. Every case study has a unique character and to replicate a previous case study is difficult. The problems arise in the uniqueness of situations and the circumstances of the original case study. Another obstacle is the difficulties to imitate social roles of the researcher and her respondents in addition as the past has to reflect the present (Yin, 2009). To increase the reliability in current paper it emphasize on a well structured literature review, with inclusion of the main characteristics of SMEs and vendor selection in general. Moreover the interviews have been structured to provide comparability between the findings. The result is greater likelihood for future research to repeat and strengthen current findings. Yin (2009) also states the reliability to be used in order to reduce the mistakes and biases in the research. Without reliability it is not possible to achieve internal validity. Moreover, it is important to focus on internal validity to strengthen the reliability. In order to increase the validity and reduce misunderstandings the authors returned the empirical transcripts to the case companies' respondents. Additionally, the questions of a more open character were sent out before the actual interview took place in order to give respondents' time to prepare and reflect over the topic. The reliability also been enhanced through the use of coding where a red line throughout the paper been created. In other words, it is possible for any observer to go through the paper and trace findings based on the research question.

## Empirical Study

*The overall aim of this chapter is to provide the reader with a description of the empirical study on both Swedish SMEs and agents. The empirical findings are gathered through primary data.*

### 4.1 Company A (Roca)

#### Company Profile

Roca was established in 1976 and the head office was located in Stockholm, Sweden. This family owned company has subsidiaries in all Scandinavian countries and in Germany, China and Taiwan. Roca is mainly specialized in stainless steel products. It develops, designs, produces and markets quality products to marine and industrial applications. Additionally, a new business area, lightning, is in progress.

Roca has 45-50 Employees and the yearly turnover is approximately 125 million SEK. Roca has 30 years experience of offshore outsourcing in China. They opened their own factory in China two years ago. Due to the wide range of their product portfolio, they are still outsourcing most of the products from their suppliers.

#### Driving Forces

Offshore outsourcing to China is actually the founder's initial decision. When he established this firm, he decided to keep the manufacturing function in low labor cost countries such as China. Another reason is that they have their own networks in Asia. For example, they have good relationships with Taiwanese companies. It is much easier for Roca to do business in China with the help of Taiwanese. The effects of culture and language barriers are minimized in that way.

#### Criteria

● **Supplier Characteristics:** According to the purchasing manager, the first criterion they evaluate is whether the potential supplier is capable of proving the required products. After that, they will check the firm size and turnover in order to assess the financial stability. However, in this case, the firm size is not the larger the better. As Roca is a small firm, they face challenges in regard to purchasing volumes. Large

suppliers usually have restrictions regarding the minimum purchasing volumes. The minimum purchasing volumes required by large suppliers are normally far exceeding the amount Roca requires. Instead, many times it is more efficient for Roca to seek small suppliers who are willing to provide products even for small quantities. Roca also pays attention to the management stability and capability. They want to start conversions directly with the owner of potential supplier to assess the managerial attributes. In that way, they could also get to know the corporate culture better. The purchasing manager further explained that “suppliers have a tendency to say yes to everything in order to get the contract”. However, “yes” can also mean “no” when it comes to deliver those promises. So it is critical to sense the supplier’s corporate culture with respect to long-term commitment. Support resource is another critical criterion. The sourcing manager emphasized the importance of energy supply, transportation and skilled labor force. She further explained why the company emphasized on those three sub-criteria. In certain area of China, the electricity supply is unstable. The frequent blackout could delay production and further affect the lead time. Transportation impacts not only the lead time but also the purchasing costs in total. The time and cost needed for transportation also differ in different areas of China. With regard to skilled labor force, Roca experienced the situation that after Chinese New Year, so many workers quitted their jobs that the suppliers couldn’t have enough workers to continue the production.

● **Product Attributes:** For Roca, quality is always the top priority. Due to the long lead-time (12-16weeks), it is impractical to ship shoddy products back and reproduce them. In order to evaluate quality, technicians will measure samples acquired from potential suppliers. Moreover, in order to ensure the consistent quality, the purchasing manager emphasized the importance of examining the quality of products provided by sub-suppliers. She gave us one example to support this argument. Once the products provided by a supplier failed to meet Roca’s quality requirement. It was a surprise for both parties since the supplier was strict with its quality control system and Roca’s technicians also oversaw the production process as usual. It took them a long time to figure out that one sub-supplier changed some materials in their products without informing Roca’s supplier. This slight change affected the final product quality severely.

● **Service Attributes:** Technical assistance and on-time delivery are two critical criteria emphasize by the purchasing manager. Since it takes around 12-16 weeks for a final product to enter Sweden, it is very important to avoid misunderstanding along the way in the process. Potential suppliers should be flexible to make changes during the process. Moreover, Roca normally deals with special customized products; the importance of customer support is emphasized by the interviewee. The purchasing

manager further explains that whenever they send out a requirement, they expect an answer within one week. They also help each supplier understand Roca's Standard Operating Procedures so that suppliers could find all necessary information regarding routines. That makes it easier for suppliers to provide corresponding services.

◎ **Financial Terms:** Roca compares product price and tooling-cost among potential suppliers. For other purchasing costs, they add on 11% for all items in order to cover insurance, custom fees, freight etc. With long-term suppliers, it is possible to make payments 30 days after shipping. Although new suppliers require up in front payments. It is very difficult to negotiate payment terms with new suppliers.

### **Methods**

Roca assigns employees to attend both local and international exhibitions to collect useful information. During the exhibitions, Roca's employees could get access to a large number of suppliers with the matched product portfolio. Roca also has local offices in China. Local networks are built and developed by local employees. A Chinese purchasing manager is in charge of the vendor selection. He contacts potential suppliers and tries to limit the options by conducting interviews. After the first round screening, on-site visits are planned. Factory's facilities are audited and other criteria discussed above are also evaluated during this process. Prototype and quotation are required after the on-site visits.

Roca's technicians involve in suppliers' production process so as to oversee and ensure the outcome is in line with Roca's expectation. Roca prefers to have back up suppliers. Normally two to three vendors supply for the same type of products.

## **4.2 Company B (Kominox)**

### **Company Profile**

Kominox was one the pioneers of purchasing stainless steel from Asia in the early 2000s. It aims to become a leading supplier of stainless steel in Scandinavia, the Baltic States and Eastern Europe. They are now well on the way to achieving their goals. In 2010, Kominox had 17employees with the turnover of 200 million SEK. They established their first office in Shanghai in 2010 and until now they have four suppliers in mainland China.

### **Driving Forces**

The initial driving force of this case could be considered as firm-specific. The major

supplier of Kominox was a Taiwanese company named as Yeun Chyang. However, during the financial crisis, the firm gained intense pressure from the bank that required Kominox to look for back up suppliers due to the fact that a large number of manufacturers went bankrupt.

During the past a few decades, numerous Swedish firms have moved (entirely or partially) their manufacturing function to China. They often had problems in finding qualified stainless steel suppliers with good quality and fair price in China. Several Swedish companies had already contacted Kominox to see the feasibility of doing business together. Therefore, from strategic thinking perspective, choosing Chinese suppliers could also be considered as the preparation for the future business opportunities.

Historically, there are a number of countries around the world that are recognized as being good at producing stainless steel. Over the last decade, new countries in Asia (especially China) have been added to that list. And on top of that, suppliers in China provide first-rate service and a price level that has caused many raised eyebrows.

## **Criteria**

● **Supplier Characteristics:** The first criterion the owner evaluates is whether the potential supplier's product portfolio covers the products Kominox requires. He prefers to do business with suppliers who have experience of doing business with Western clients. However, he mentioned that checking references could also be useless because sometimes those western companies are not willing to share information with someone they consider as the potential competitor. Another criterion is that potential suppliers should use international standards to conduct the manufacturing so that they do not have to put so much effort in specification. In this case, he prefers the American standards, either the American Iron and Steel Institute (AISI) standards or American Society for Testing and Materials (ASTM) standards. Potential Supplier's manager's personality, to be more specific, the negotiability and values are the two sub-criteria he would investigate into. Infrastructures such as transportation, physical buildings and production lines are also considered as critical criteria. However, different from other interviewees, the owner does not include potential supplier's firm size and financial situation in vendor selection criteria. The reason is that he believes it is hard to investigate supplier's financial stability. Even though those suppliers are in a bad financial situation, none of them will be willing to share that information with their potential clients. Moreover, he did not believe in quality certificates (e.g.ISO9000). He said even the supplier has quality certificates; it doesn't guarantee the final product quality. On the other hand, it takes time and firm resources to acquire the certificate. Some small suppliers are capable of providing products with really good quality, but they do not have adequate resources to acquire those quality certificates. The owner did

not want to rule out part of potential suppliers only because they do not have quality certificates.

☉ **Product Attributes:** Quality is always Kominox's first concern. They have rigid quality specifications. In order to evaluate the quality level, they require product pictures and samples from potential suppliers. Kominox also hired a technician in China who is mainly in charge of evaluating, inspecting and controlling quality.

☉ **Financial Terms:** Price is always a sensitive topic. However, for Kominox, the product's price is not so decisive since they already have abundant knowledge and experience in outsourcing in Asia. As long as the price is lower than the highest price they are willing to offer, then the supplier will be considered as qualified. And the final decision will not be made only based on the price. Nevertheless, the payment terms suppliers require from Kominox are really hindering the business. Kominox has to pay at least fifty percent in advance and also to entitle the suppliers to get the bank's guarantee for the rest. Since cash flow is really important for the turnover ratio, the supplier who could provide certain credits will be considered as a merit.

☉ **Service Attributes:** Service and flexibility are not merely empty words; they are vital components of Kominox's daily work. That is the reason why Kominox pays so much attention to the degree of service and readiness that suppliers could provide. The main elements of service level are delivery reliability, after-sale service, and flexibility. Delivery reliability could be even divided into delivery in time and low goods damage rate during the delivery. Since most of the purchased products have already been presold to Kominox's clients before shipping, the delivery reliability is really crucial for Kominox's success. Kominox has strict documented instructions for packing and delivery. Only those suppliers could meet the required delivery reliability and after-sale service will be considered. One optional criterion is the flexibility of suppliers with regards to the quantity and lead time.

## **Methods**

Instead of using complex mathematical, statistical models to make the vendor selection decision, the managing director prefers to weight the potential vendor's overall performance by trusting his "gut feeling". Two steps in the vendor selection process are mentioned: Collecting information about the potential suppliers and then get insights into the potential suppliers.

The managing director of Kominox attended lots of trade fairs just to collect useful information. During the trade fairs, he could find a large number of suppliers with the matched product portfolio. After talking to and also getting samples from different

suppliers, he would make the final list of potential suppliers.

The next step is to visit those potential suppliers and to discuss business details with the owners. By doing so, he could get insights into those potential suppliers. He could see what kind of machines they use, whether the owner is trustworthy, whether the workshop is well managed, how do they measure and ensure the quality and so on. He would take pictures from different suppliers and list pros and cons for each potential supplier. The final decision will be made by the decision group based on his visiting experience. Kominox does not prefer to have back up suppliers. They prefer to be a big buyer in order to get a price discount from their suppliers.

### **4.3 Company C (Metall Kompeniet)**

#### **Company Profile**

Metall Kompeniet provides very wide range of products in door and window industry. Their products portfolio includes outdoor hinges, inside door hinges, window hinges, locks, counter parts, handles etc. and different parts for those products. They also deliver silicone and TPE profiles for doors and windows. Their offshore outsourcing history dates back to 1993 and they established their own factory in China in 2001. However, vendor selection still accounts for a large part of their daily works even though they already have their own factory in China. They have three employees with a yearly turnover of 12 million SEK.

#### **Driving Forces**

Cost reduction was the initial motivation for Metall Kompeniet to start the offshore outsourcing activities in China. And it has always been the primary driving force for Metall Kompeniet to keep its sourcing strategy.

More and more qualified suppliers have emerged in China during the last decade due to the vast development of economy and technology. There are a large number of manufacturers that are capable of providing standard products with high quality. The infrastructures in China have been improved a lot so that this company has more choices regarding supplier's location.

Due to the wide range of product portfolio and limited resources Metall Kompeniet has, it is impractical to manufacture all types of products by its own. Therefore, Metall Kompeniet has to focus on its core capability and outsource certain type of products to appropriate suppliers.

#### **Criteria**



● **Supplier Characteristics:** In regard to the company size, Metall Kompeniet believes the larger the better. The reason is that large firms seem to be more stable in the long run. The sourcing manager also tries to sense potential supplier's corporate culture by investigating their way of doing business. The sourcing manager wants to find out whether potential suppliers are only interested in money or they also value commitments and are willing to build long-term relationships.

The interviewee investigates potential supplier's CSR issues by asking the following three questions: (1) Does the supplier use any child labor? (2) Do they have adequate environmental protection series equipments such as water purifying equipment, sewage-treatment device, waste gas absorption and purifying device? An even more important factor is if they utilize those equipments during production. (3) What kind of raw materials do they use? Certain raw materials may not affect the final product performance, but they are proven harmful to the workers long-term exposed to. With respect to support resources, the interviewees mentioned well-functioned production lines and the convenience of transportations.

The sourcing manager also checks whether or not the potential supplier has quality certificates such as ISO9000. Suppliers' references and exporting track records will also be checked. It is considered as a merit if the potential supplier has good relationships with previous western clients.

● **Service Attributes:** Metallkompaniet design all their products themselves, next they teach the Chinese manufacturers to produce these products. All these products are customized and all the technological information comes from Metallkompaniet. Therefore it is a need that the supplier is flexible and able to change between products. If a problem arises Metallkompaniet solve it together with the supplier. To cope with this challenge the co-founder of Metallkompaniet has around four hours of daily contact with its 13 suppliers.

● **Financial Terms:** The most essential element of purchasing cost is the product price. Metall Kompeniet always wants to be aware of the product price at the early stage of vendor selection processes. If the product price sounds reasonable, they will continue evaluating potential vendors by other criteria and investigate the complete price. Normally Metall Kompeniet has to pay 20% in advance and the rest one week after shipping. Normally it is nonnegotiable.

● **Product Attributes:** Since Scandinavia is the major market for Metall Kompeniet, it is a must to provide clients with good quality products for the sake of maintaining long term relationship and safeguarding its reputation. Metall Kompeniet requires product pictures and samples from supplier candidates to examine whether or not they

can meet the quality requirements.

## **Methods**

Instead of using complex quantitative models to make the vendor selection decision, the co-founder prefers to use simple qualitative approaches. The suppliers of Metallkompaniet are found on hardware fairs and by use of its four agents spreading over different locations in China. To evaluate a supplier Metallkompaniet look at three aspects: First, the suppliers' price is on the right level and it is not varying over time. To achieve this they seek long term relations with their suppliers where mutual understanding can be built. The second aspect is their delivery times, unless there is problem caused due to the "specialty" of customized products Metallkompaniet state delivery times has to be kept. Third, a quality control list is used to check whether the supplier follow the drawings or not. To make sure these three aspects are followed they visit the factory and require samples to test the quality. Metallkompaniet claim the switching cost to be too high to change suppliers if their requirements not are fulfilled. Instead they aim to instruct and guide the supplier to better meet their requirements. When one of their suppliers manufacture a new product Metallkompaniet start to ask for trial orders, if the trial orders are satisfied they order larger quantities. They further claim their main challenge to be having good quality to a reasonable price. In other words, they seek the middle way which both satisfy their demanding customers and has a competitive price.

## **4.4 Company D (Anonymous)**

### **Company Profile**

Company D supplies Scandinavian apparel industry with textile commodities such as interior textiles, gloves, fashion accessories, technical fibers and yarns, sports closing and shoes. The firm has offshore outsourcing experience since more than 50 years back. It is a trading firm with less than 50 employees based in Sweden. The firm also have a handful of employees in Shanghai. The first offshore location was Japan and today they are sourcing on a more global basis with Asia as a central point. The annual report of 2009 revealed a turnover around 130 million SEK.

### **Driving Forces**

The manager pointed out the main driving force of outsourcing to China is the increasing competitiveness of Chinese suppliers. Chinese suppliers could offer good quality products with competitive prices. Furthermore, the textile industry in China is

very mature, which means Chinese suppliers are capable of offering a wide range of textile products. Due to the labor-intensive nature of textile industry, low labor cost in China has attracted so many companies along the supply chain from upstream to downstream. So it is also natural for Company D to follow that trend.

### **Criteria**

● **Supplier Characteristics:** The first criterion they look into is supplier's product portfolio to make sure the supplier candidates could offer the products Company D asks for. Then the interviewee mentioned the importance of supplier's managerial attributes. He considered it extremely important that the selected supplier could take care of their business when they are not present. He believed that the supplier's management is somewhat related to this issue. The attitude and commitment of supplier's management are the factors he investigates. To be more specific, he emphasized "humble" and "mutual trust". He appreciated potential suppliers who could say "No" to Company D's requirements. It is actually considered as strength to show the weakness to your potential clients. Since in certain cultures showing weakness can be linked to aspects such as "losing your face". Normally most of the suppliers tend to say "Yes" all the time even though they cannot keep the promise in the end. Moreover, once the supplier said "Sorry, we are not able to meet your requirements, we are not good at this." "Then next time you will be more confident in what they tell you they can do."

The manager also checks the references suppliers have and prefers to do business with suppliers who have experience and good relationships with Western clients. The supplier who has done business with Japanese clients is also considered as reliable since Japanese firms are well known for their rigid quality standards. It is rather hard for small companies like Company D to gain interests from Chinese large suppliers as the Scandinavian market is comparatively small. Therefore Company D is inclined to do business with small sized suppliers. Since those small suppliers seldom have quality certificates due to lack of adequate resources for acquiring the certificate, Company D does not factor quality certificates into vendor selection criteria. Company D does pay attention to issues related to corporate social responsibility. The environmental issues and employee's treatment (working environment and welfare) are the factors Company D concerns.

● **Service Attributes:** Company D designs new products together with its customers and outsource production with a lead time of three months. The non-stock feature of Company D makes it nature to emphasize the importance of on-time delivery. Furthermore, the small market Company D acts in further lead them to value flexibility before price. In another word, Company D's customers are willing to pay a higher price on the cost of good quality and flexible changes.

◎ **Financial Terms:** In regard to payment terms, suppliers normally require Company D to pay 30 % upfront. However, the department manager pointed out that managers have to make the trade-off between high potential profits with high risks and low potential profits with low risks. So if the supplier requires 100 % payment in advance, the deal has to be extremely interesting for Company D to consider that rigid offer.

◎ **Product Attributes:** Quality is undisputed the top concern in terms of product attributes. Company D has strict and detailed specifications according to different products. Many chemicals have recently been forbidden in Europe. It requires that the suppliers Company D works with should be able to state what chemicals have been used in textile production. The firm now has a chemical engineer in China controlling what and to what degree various chemicals are used in production.

### **Methods**

Instead of using complex quantitative models to make the vendor selection decision, the purchasing manager prefers to use qualitative approaches.

The vendor selection process could be decomposed into many filtering steps. First, find potential suppliers and make a list. There are two ways of doing this. Company D could either search for potential suppliers in international fairs or use the networks built by its local office in China. Second, after reviewing the references, Company D shortens the list and chooses several suppliers to visit. This process is conducted along with agents. Consequently, Chinese agents on place help with negotiation and sustained relationships with suppliers. When Company D has a more precise understanding of what profile interesting suppliers offer they will be matched in accordance to suitability of fashion accompanied by flexibility, quality, price and lead time. The strength of partnership is based on loyalty where personal relations are emphasized. Agreements as referred to code of conduct are there to further smoothen the relationships avoiding misunderstandings. Moreover, Company D is a small firm that acts on a tiny Scandinavian market meaning it is not an efficient strategy to switch suppliers due to price. The firm is still doing business with Japan even if the rates are higher there, what instead promote this relationship is years of working close together where mutual understanding has been created. So to motivate suppliers to work with a small volume company as Company D they state their loyalty where both the supplier and Company D are winners in the long run. They have several backup suppliers because of the lead-time concerns.

## 4.5 Company E (Cellwood Machinery)

### Company Profile

Cellwood machinery has 43 employees with a 350 million SEK yearly turnover. Most of the firms' competitors in the industry of paper and pulp machines are large companies. The firm has five years global sourcing experience. Cellwood Machinery sees themselves as a niche company supplying the market with quality products. The components are sourced from China while the final products are assembled in Sweden. The firm performs sales in Europe and Asia with China as currently the largest market. Currently the organization has one office in Shanghai and one person working the south market.

### Driving Forces

The lower price Chinese suppliers could offer is the initial motive for Cellwood machinery to outsource to China. However, price is not the only motivation. All of Cellwood Machinery's competitors are doing business in China. It pushes the case company to follow that trend. Due to the limited resources Cellwood Machinery has, they cannot conduct foreign direct investment (FDI) like its large competitors. However, the future opportunities are also strong incentives throughout the organization. The purchasing manager considered sourcing activities as a learning and experience accumulation process.

### Criteria

● **Supplier Characteristics:** The purchasing manager emphasized the importance of supplier's location. He further explained that China is a huge country and the differences are many. Also many knowledge exchanging workshops are preformed in the country, although not consistent with the same technology as held in European workshops. Cellwood machinery does not factor quality certificate into the vendor selection criteria. However, Cellwood machinery does evaluate suppliers' quality control systems by checking the quality reports suppliers have. The manager also checks the references suppliers have and prefers to do business with suppliers who have experience and good relationships with western clients.

● **Service Attributes:** Customer support is another aspect highly emphasized by the case company. In some cases, Cellwood Machinery asks for measurement protocols. Quick response is extremely important. If Cellwood Machinery has two similar suppliers it undoubtedly chose the one with best accessibility. The case company always asks for high levels of technical support. In regard to delivery performances, the

purchasing manager emphasizes the importance of on-time delivery. Flexibility is needed in the sense of adjusting customers' requirements in a timely manner.

● **Product Attributes:** Cellwood machinery considers quality as the most important criterion. After all, returning unqualified products to China is a complicated and time consuming process. It also requires samples from potential suppliers to evaluate on what quality level they could provide.

● **Financial Terms:** On the premise of good quality, the price level has huge impact on Cellwood machinery's final vendor selection decision. Regarding payment terms, normally it is nonnegotiable. Fifty percent has to be paid in advance.

**Methods:** Cellwood Machinery is a typical company relying heavily on agents for helping them choose appropriate suppliers. Before taken a decision whether to move activities to foreign markets Cellwood Machinery consult Swedish agencies both based in Sweden and China. These agents have many international contacts and are seen as a link to effective offshore outsourcing. To mitigate the risk and evaluate the criterion of choosing the right supplier they check references of interesting suppliers. They also require product photos, samples, and quality report from suppliers. After checking all the factors mentioned above, the agents choose several suppliers who are considered as most qualified. The next step is to conduct interviews with potential suppliers and also visit the factories. By doing so, Cellwood Machinery could have a more concrete feeling regarding each supplier. Before making a large order, Cellwood Machinery normally lays a trial order first. They also have backup suppliers in Europe just in case when the products cannot be delivered in time.

## **4.6 Agent A (Swedish trade council)**

### **Agent Profile**

The Swedish Trade Council (STC) was founded in 1972 and has presence in more than 60 countries. They serve the Swedish government and Swedish companies by working closely with trade associations, embassies, consulates and chambers of commerce around the world. They dedicate themselves to bringing business opportunities for Swedish firms by increasing business contacts with foreign companies. They arrange bilateral events such as seminars, fairs, press-trips and match-making projects. With respect to global sourcing, they assist firms in finding suitable foreign suppliers. However, they only take the initial screening process and their clients will make the

final decision.

### **Driving Forces**

Cost saving is the main purpose for most of their clients. China is a mature land in terms of offshore outsourcing. More and more qualified suppliers have emerged in China during the last decade due to the vast development of economy and technology. There are a large number of manufacturers that are capable of providing standard products with high quality. The infrastructures in China have been improved a lot so that this company has more choices regarding supplier location.

Moreover, when the firms consider the decision of offshore outsourcing, they should have a broader vision which is to take the whole value chain into consideration. They have to think about not only themselves and their customers but also their customer's customer. Since nowadays China is compared to a "world factory", it is also a strategic decision to follow that trend and to gain benefits in the long term.

### **Criteria**

● **Supplier Characteristics:** The product portfolio is normally the first criterion to look at when search for potential suppliers. They also check whether the supplier has export experience. Furthermore, they prefer to choose suppliers who have experience and good relationships with Western clients. Supplier's firm size is another criterion they concern about. They tend to choose large suppliers since they believe that the larger the supplier is, the more stable they will be. They also pay attention to supplier's negotiability. Language (English) capability is what they evaluate. Suppliers have to meet high quality requirements which the Swedish customers normally have. In turn, quality systems are considered as a critical criterion. However, quality certificates are not necessities due to the fact that not all the suppliers have adequate resources for acquiring that. They also evaluate supplier's facilities. Production lines, materials, and physical buildings are normally the sub-criteria they look at. Environmental certificates (e.g.ISO14001) are also considered as an optional criterion.

● **Service Attributes:** Customer support is considered as an important criterion. Some companies ask suppliers to come up with drawings and designs for them. Others require suppliers to provide new modes for the production. To some extent, SMEs all need suppliers to make certain adjustments for their products in a timely manner. Also standard products are usually purchased by Swedish companies. They often keep a large stock in Sweden and have good estimate of the demands, which means the lead time is the least important factor among all criteria.

● **Product Attributes:** Since product specifications differ in different industries,

there's no consensus found in this category. However, clients' usually have a detailed list regarding the product specifications. They send that list to potential suppliers and also examine the samples received from suppliers according to that list.

◎ **Financial Terms:** In case of the STC they look at the product costs as their main deciding factor. However, it is extremely hard to get a real price without negotiation and order.

## **Methods**

It is impractical to use quantitative approaches especially when the data is hard to gather or the information is not so transparent. For instance, quality is really hard to measure since no one is willing to give the exact percentage of rejection items. The STC tailors each project according to their customers' needs. The approach viewed by the authors was a three steps tunnel approach to filter out the most potential suppliers. First, it identifies certain clusters for the certain product in China. It is very common in China that producers in the same industry are located in the same area. They approach this by making a long list of roughly 100 suppliers. Second, they make the list shorter by looking at the suppliers' websites, emailing them and also conduct interviews over the phone. Third, the STC visits the potential suppliers (factories). They pay high attention that the facilities, processes and working conditions are consistent with their criteria. Furthermore they claimed the saying; "do not put all your eggs in one basket" to always be considered. When choosing suppliers, it is too risky to have only one supplier in China. So at least they should have one main supplier and one back up supplier. Normally they start with a trial order and gradually increase the order volumes.

## **4.7 Agent B (Vantage China Production)**

### **Agent Profile**

Vantage China Production (Vantage) is a Swedish agent, who assists Swedish companies to find suitable products and suppliers in China. Security, quality and long term thinking are important values in the organization of Vantage. A constant presence in China, along with a long term approach with focus on creating and maintaining stable relationships with cooperating parties facilitates them in achieving these values. From having staff located in Sweden as well as in China, Vantage is able to maintain a continuous and satisfying dialogue with both Swedish and Chinese cooperating parties. The office in China was established in 1999. Vantage cooperates with the Swedish Trade Council and the Swedish Chamber of Commerce. They are moreover members of



SCTC (Sweden China Trade Council). This enables them to stay continuously updated on important issues concerning trade between Sweden and China.

### **Driving Forces**

Vantage has been specialized within the light manufacturing industry. To be more specific, they mainly deal with labor-intensive products. Labor costs really have a huge impact on the final product price. Vantages managing director gave us an example that “mode A” made by Chinese supplier only cost 0.125 million SEK, while it normally costs one million in Sweden. Despite cost savings good quality is a requirement. The number of qualified suppliers has increased a lot during the last decade. The direct result is that Vantage has more choices than before. Well developed infrastructure in China also makes it much easier to connect suppliers with clients.

### **Criteria**

◎ **Supplier Characteristics:** Vantage only deals with small sized vendors. Because of the small purchasing volumes Swedish SMEs normally have, it is very hard to negotiate good price with large suppliers. Moreover, since large suppliers normally prioritize the production for large clients, on-time delivery cannot be guaranteed in that case. The managing director emphasized the importance of management stability since they are trying to build long term relationships with the suppliers. They try to build the relationship with the owner directly. Trust, long-term commitment, and culture understanding are the three factors they investigate into. The interviewee further explained that “Guan Xi” is extremely important in China. Suppliers have the tendency to say “yes” to all your requirements in the beginning. But it is difficult to tell whether or not they are able to deliver the promised performance in the end. While in situations when the buyer has good relationship with the supplier they can circumvent this. In the case of Vantage, they have a good relationship with the Suppliers owner and the problem is mitigated.

Besides the physical assets, the agent also considered skilled labors as one critical criterion. Exporting experiences and relationships with previous customers (especially with western clients) are valuable references.

Potential supplier’s sub-suppliers’ long-term commitment for quality control should also be evaluated. The interviewee further explained that what kind of sub-suppliers suppliers have could affect the final product’s performance. Moreover, in order to ensure the quality, agent has to examine the materials quality before starting production.

◎ **Product Attributes:** Clients usually have a detailed list regarding the product specifications. They send that list to potential suppliers and also examine samples received from suppliers according to that list.

☉ **Financial Terms:** Since cost reduction is the primary motive behind clients' offshore outsourcing decision, competitive price is the fundamental criterion when evaluate the potential vendors. However, the interviewee didn't consider the payment terms as one vendor selection criterion since it is industrial norm to pay 30% in advance.

☉ **Service Attributes:** With respect to customer support, the interviewee emphasized the importance of accessibility, timeliness and responsiveness. The interviewee gave us an example that in this particular industry, suppliers need to adjust the mode according to customer's specifications before production. It is time-consuming due to the fact that those modes have to be handmade. Thus, it is critical that the potential suppliers could make the adjustments in a timely manner.

## **Methods**

The managing director explained the method to evaluate suppliers to contain several steps. Vantage starts with trade fairs, but also to search their own networks. In the second step they interview the potential suppliers found. If the supplier is still interesting after the interview they visit the supplier, check product lines. During these visits it is important get close to both managers and workers. For instance, Vantage asks the line manager questions regarding quality control systems. Also the workers are asked detailed questions whether they follow the instructions during production process. They have a list regarding the criteria mentioned above.

In a final step Vantage write an analysis report. In this report, each criterion will be discussed and analyzed based on what they saw and what they heard during the visit. There is also a conclusion part in each analysis report regarding the pros and cons of each potential supplier. The final decision is made based in the analysis report.

However, Vantage don't only select one supplier for their clients. Instead it is normal to have two to three suppliers to produce the same products as back up suppliers, in case one of them got a large contract? and put behind small volumes.

## **4.8 Agent C (Linc Sourcing)**

### **Agent Profile**

Linc Sourcing is a Swedish agent helping companies to find and tie relationships with their sourcing partners. The firm was founded in 1990s and currently there are three employees in Sweden and eight employees in China. The headquarters of Linc Sourcing

is located in Sweden with franchise takers scattered around five other European countries. Linc Sourcing has a network of approximately 100 suppliers, and most of them are in Asia.

### **Driving Forces**

Cost saving is the initial and main driving force behind clients' sourcing decision. Moreover, other driving forces are also mentioned. Examples are getting access to foreign resources from a perspective of both new intellectual capabilities and raw materials. Another point is that the Chinese government really put a lot of efforts in attracting foreign buyers. Favorable exporting policies, well developed infrastructures and undervalued currency all contribute to that point. Moreover, the Chinese government has realized its power of being a central actor in global economy. In turn they strive to further enhance their effectiveness by adopting western requirements. For instance, they abolished the former regulation that in order to conduct businesses in China foreign firms are obliged to have a Chinese partner.

### **Criteria**

☉ **Supplier Characteristics:** The interviewed co-founder emphasized the importance of effective communications. Potential suppliers are supposed to communicate in a swift, straightforward and effective way. Hence, communication should be clear and fast and ease up obstacles such as culture and distance barriers. Moreover, good communications also means less misunderstandings and a more effective collaboration. The capability of effective communication is evaluated mainly via face-to-face contact. Suppliers are supposed to have their own well functioning and well thought-out quality systems. However, the interviewee did not emphasize the necessity of having quality certificates. Potential suppliers also need to adopt a well served administrative system to control over the whole organization and enhance the efficiency. The administrative system refers to the system that could keep customer's specific requests in record. Consequently, both the suppliers' management and production workers should be aware of the buyers' requests. With respect to support resources, the interviewee emphasized two aspects; physical facilities and well established supply conditions. Another important criterion mentioned by the interviewee is the supplier's willingness of accepting low quantity orders. In other words, suppliers need to give full flexibility to their customers in terms of purchasing volumes. Linc Sourcing has a set of goals and requirements for their suppliers according to working conditions and environment. They want each supplier to comply with national laws and regulations and with international conventions concerning protection of the environment, working conditions and child labor. Potential suppliers should be aware of environmental issues related to their production and be active in finding solutions to continuously reduce waste and

emissions to air, ground or water. Moreover, suppliers ought to use as much recycled material as possible in production and packing. All in all, potential suppliers should be willing to accept Linc Sourcing supplier codes of conduct.

● **Product Attributes:** Clients usually have a detailed list regarding the product specifications. They send that list to potential suppliers and also examine samples received from suppliers according to that list.

● **Financial Terms:** Since cost reduction is the primary motive behind clients' offshore outsourcing decision, competitive price is the fundamental criterion when evaluate the potential vendors.

● **Service Attributes:** A high level of service is required due to the fact that customized products are mainly purchased by Linc Sourcing's clients. Drawing services are normally demanded by Swedish SMEs. Moreover, it is a merit if the supplier has the ability to design the products for its customers.

## Methods

Instead of using complex quantitative models to select vendors, Linc Sourcing prefers to use comparatively simple qualitative approaches. The approach could be further decomposed into three steps: first round vendor selection, second round vendor selection and the final decision. Once they get the outsourcing requirements from their Swedish customers, they start to conduct the first round vendor selection. First, the agent search suitable suppliers from their existing supplier database. A sourcing team are assigned to check their existing suppliers while take the products specification into consideration. If none of those suppliers could meet the requirements, the agent selects new suppliers according to their sourcing guidelines. Linc Sourcing Initial Supplier Evaluation Program is launched. All the criteria mentioned above are the vital elements. Linc Sourcing assigns its employees to visit the potential supplier. They audit the factory's tangible assets and then compare the current factory situation with clients' requirements. Normally after the first round, two or three suppliers will be selected as candidates. In the second round selection, prototypes and quotations are required from suppliers. Trade-off has to be made among price, quality: Some companies pursue best quality and accept higher prices. The challenge is to find companies that could provide the most satisfactory prototype with a most reasonable price. Linc Sourcing should also make sure the chosen supplier's quality control works satisfactorily and the logistics are handled in the most efficient way. It is common to have only one supplier for one group of products. In exceptional cases, the buyer chose two suppliers to put pressure on the suppliers.

## Analysis

*This chapter will analyze the empirical data against the findings collected in the literature review with focus to provide insights on the research question. The previous structure based on SMEs' driving forces, criteria and methods will be followed, discussed and compared.*

### 5.1 SMEs' Driving Forces

Consistent with the theoretical framework SMEs initially face different challenges to MNEs. Storey (1994) and Boissevain (1991) claim SMEs to be flexible, simple and informal besides characteristic of enhanced responsibility among employees and lack of bureaucracy. In contrast to MNEs it is difficult for SMEs to compete on economies of scale and access the financial resources in the same amount, meaning SMEs compete on other premises than MNEs. In spite of the differences Gregorio et al. (2009) stress the fact that MNEs and SMEs share the same international sourcing motives of reducing costs and increasing efficiency. International capital markets have put a price on most commodities where countries and regions compete to attract foreign capital (UNCTAD, 2004). Simultaneously, the gap of SMEs limited to local markets and MNEs on global markets has decreased along the everyday emerging globalization. However, before a SME is able to compete on global basis by lower costs and enhancing efficiency it needs to overcome its size constrains. Gregorio et al. (2009) argue SMEs to conquer size disadvantages by utilizing resources held by others whilst achieving flexibility, network and learning advantages. This is also the pattern for SMEs we interviewed who confirm the importance of globalization and growth of emerging markets.

#### 5.1.1 Important Driving Forces

Based on the theoretical framework current paper summarizes the driving forces detected in the empirical part. The aim is to provide the reader with sound understandings of the internal and external driving forces that either push or drive SMEs to offshore outsource. Table 3 below verifies the case organizations most important

driving forces to extend their business to China, both from an external and internal perspective.

**Table 3: Driving Forces**

Driving Forces		SMEs					Agents		
		Roca	Kominox	Metal Kompniet	CompanyD	Cellwood Machinery	STC	Vantage	Linc Sourcing
External	Growth of Emerging Markets		x	x	x		x	x	x
	Globalization		x		x		x		
	Liberalization							x	x
Internal	Cost Reduction	x	x	x	x	x	x	x	x
	Flexibility	x	x	x	x	x		x	x
	Free up Resources	x		x		x			
	Relation with Strategic Partner	x	x			x			

Source: Authors' own elaboration

### 5.1.2 External Driving Forces

Conducting the interviews we categorized growth of emerging markets, globalization and liberalized markets as external driving forces describing the attractiveness for SMEs to perform offshore outsourcing in China.

● **Growth of emerging markets:** An interesting aspect, specific to the nature of current paper is the importance of China as a mature market. In essence to mature markets it is also less risky to act on the market, something claimed by the agents to be a main initial reason why their clients chose China. Well developed infrastructure in China not only makes it easier to connect suppliers with clients but also ensures the stability of supply channels and reliability of delivery. More and more qualified suppliers have emerged in China during the last decade due to the vast development of economy and technology. There are today a large number of manufacturers capable of providing standard products with high quality. The department manager of Company D pointed out that the main external driving force is the increasing competitiveness of Chinese suppliers. Similarly, the managing director of Kominox also commented that Chinese suppliers who are providing first-rate service at an attractive price level have caused many raised eyebrows.

● **Globalization:** One reason why SMEs conduct sourcing in China is because their customers, suppliers and even competitors are already operating in China. For instance, all of Cellwood Machinery's competitors are doing business in China. It pushes the case company to follow that trend. The department manager of Company D also stated that

so many companies along the textile supply chain have been doing business in China long time ago. Consequently it is also in Company D nature to follow that trend. Moreover, when SMEs consider the decision of offshore outsourcing, they should have a broader vision. That is to take the whole value chain into consideration. They have to think about not only themselves and their customers but also their customer's customer. Since nowadays China is compared to a "world factory", it is also a strategic decision to follow that trend and to gain benefits in the long term. Following the trend is an interesting aspect which argues that SMEs do not want to miss out on opportunities associated with global dynamic trends. Moreover China is seen as a "world factory" the country additionally attracts clusters, mainly manufacturing industry clusters. Porter (1998) explains that being part of an industry cluster increases the competitiveness of the SMEs. Gregorio et al., (2009) argue companies to access other resources, learning benefits, and network participation. In sequence, the Swedish trade council bases their selection process by identifying clusters beneficial for a client. As the client or SME get access to a cluster it may gain intellectual capabilities and resources on reasonable prices.

◎ **Liberalization:** China is well aware of her role in the global economy and has loosen up former tight regulations to better meet western requirements. Favorable exporting policies, well developed infrastructures and undervalued currency all contribute to that point. Two of the agents pointed out China to construct government policies to attract foreign companies. For instance, they abolished the former rules that in order to conduct businesses in China foreign firms are obliged to have a Chinese partner. A more global, mature and liberalized Chinese market becomes a solid base for competitive clusters.

### 5.1.3 Internal Driving Forces

The most evident internal driving forces brought up during the interviews were future business opportunities, cost reduction, free up resources and flexibility. These factors state on what grounds the SMEs seek sourcing opportunities in China.

◎ **Cost Reduction:** Evidently shown in the table is that cost reduction is the most important driver to outsource to China. The production cost overseas has to be lower than in the western part of the world. Overall the quality was said to be better or similar in west but good enough to pay less in China. These findings are compatible with the literature review. Weber et al. (1991) among others claimed cost and quality to be the most deciding factors to precede international sourcing operations. Offshore outsourcing

in China is further in line with several SMEs' corporate strategy. In the case of Company D, Roca and Kominox it was the founders' initial decision to keep the manufacturing function in low labor cost countries.

● **Flexibility:** As Butta and Huq (2002) describe flexibility is an important aspect, especially when companies perform offshore outsourcing. One of the main motives for enhanced flexibility is the ability to change according to market demands. The case companies express a will to not to get stuck in the middle without a second option. Metallkompaniet and Roca are two companies that argue for increased flexibility emphasizing various suppliers to select among.

● **Free up Resources:** This is associated with transaction costs and the decision whether to make or buy. A challenge for many firms is to keep their core capabilities in house and outsource what is done more efficiently by others. Firms could free up their own resources from outsourcing functions to others and focus on what they do best. (Baker & Nelson, 2005). In current study, Roca, Metallkompaniet and Cellwood machinery all have the feature of possessing wide product portfolios. Hence, it is critical for case SMEs to outsource certain types of products in order to ensure the wide range of product portfolio.

● **Extended Relation with Strategic Partners:** A critical driving force is future business opportunities where SMEs benefit from extending relations with important overseas partners (Berger, 2005). For Kominox, from strategic thinking perspective, choosing Chinese suppliers could be considered as the preparation for future business opportunities. During the past a few decades, numerous Swedish firms have moved (entirely or partially) their manufacturing function to China. They often have problems in finding qualified stainless steel suppliers with good quality and fair price in China. Several Swedish companies have already contacted Kominox to see the feasibility of doing business together. For Cellwood Machinery, the future opportunities are also strong incentives throughout the organization. The purchasing manager considers sourcing activities as the learning and experience accumulation process.

## 5.2 Vendor Selection Criteria

Vendor selection has been determined as a multiple -criteria decision making problem (Lin, 2010). The effective international vendor selection should consider all the qualitative and quantitative criteria in relation to international supplier selection, in the



mean time analyze the various trade-offs among these criteria in a multiple criteria environment (Min, 1994).

The empirical findings to some extent demonstrate that SMEs' vendor selection is a broad comparison of suppliers by adopting a common set of criteria. Moreover, the common set of criteria used by case organizations is similar to criteria listed in present literatures, even though those SMEs have different focuses. For an overview, see table 4 below. The table is based on data from interviews regarding which selection criteria that are perceived as most adopted in each case organization.

**Table 4: Vendor selection criteria used by case organizations**

Selection Criteria		Literature Review	SMEs				Agents			
			Roca	Kominox	Metal K.	CompanyD	Cellwood Machinery	STC	Vantage	Linc Sourcing
Supplier Characteristics	Production Capacity and Product Portfolio	x	x	x		x	x	x	x	x
	Financial Situation	x	x							
	Firm Size	x			x			x		
	Corporate Culture		x	x	x	x	x	x	x	x
	Management Stability	x	x	x	x	x			x	
	Management Capability	x	x	x		x				x
	Support Resources	x	x	x	x	x	x	x	x	
	Quality Systems	x	x	x	x	x	x	x	x	x
	Internationalization	x	x	x	x	x	x	x	x	x
	Corporate Social Responsibility	x			x	x		x		x
	Negotiability	x	x	x	x	x	x	x	x	x
Product Attributes	Product Performance	x	x	x	x	x	x	x	x	x
	Other Product Features	x				x				
Service Attributes	Customer Support	x	x	x	x	x	x	x	x	x
	Delivery Performance	x	x	x	x	x	x	x	x	x
Financial Terms	Cost	x	x	x	x	x	x	x	x	x
	Payment Terms	x	x	x	x	x	x			

Source: Authors' own elaboration

Kahraman et al (2003) argue that the level of details used for examining potential suppliers may vary because of firms' specific needs. Due to the limited resources and small order volumes SMEs normally possess, they do have different emphasis regarding selection criteria when compared with current literatures. The empirical findings further indicate that SMEs simplify the selection criteria and only focus on core factors. Moreover, in regard to criteria measurements, SMEs differ from current literatures in many aspects. The following section will be a discussion contrasting the empirical data with the findings collected from literatures in light of the four criteria categories.

### **5.2.1 Supplier Characteristics**

The literature claims that "Production Capacity" is a vital supplier selection criterion (Weber et al, 1993). However, none of those SMEs factor the product capacity into the vendor selection criterion. It is partially because the comparatively small purchasing volumes SMEs usually demand. Nevertheless, the empirical findings indicate that the product portfolio is normally the first criterion to look at when search for potential suppliers. Company D claim that they want to make sure potential supplier are capable of proving required products.

Literature indicates that suppliers' financial stability is a requisite for the long-term outsourcing performance (Kahraman et al, 2003; Ahmad, 2006). However, among all those case companies, only Roca checks suppliers' financial situation. Other case companies argue that it is not only hard to get the information regarding suppliers' financial situation but also hard to tell whether the acquired information is genuine or not.

Zhang (2008) indicates that firms should choose large suppliers over small ones. The author claims that the smaller size the vendors have, the riskier and less reliable they will be. Nevertheless, consensus has not been found in case companies. Regarding supplier's firm size, only Metall Kompeniet and Swedish Trade Council believe the larger the better. They indicate that large firms seem to be more stable in the long run. Other six organizations are inclined to do business with small sized suppliers. Both Roca and Company D claim that large suppliers usually have minimum purchasing volumes. Moreover, the minimum purchasing volumes required by large suppliers are normally far exceeding the amount they demand. In constrast, many times it is more efficient for them to seek small suppliers who are willing to provide products even for small quantities. Vantage argues that it is very difficult to bargain with large suppliers due to the small purchasing volumes Swedish SMEs normally order. Moreover, since large suppliers normally prioritize the production for large clients over that for small

clients, on-time delivery cannot be guaranteed in that case.

Regarding managerial attributes, Kahraman et al (2003) argue that management stability and capability are essential criteria in vendor selection. Most of the case companies also emphasize the importance of management stability since they are trying to build long-term relationships with their suppliers. In regard to management capability, only half of the case companies claim they investigate into this criterion. For instance, Linc Sourcing demands their suppliers to adopt a well served administrative system to control over the whole organization and enhance the efficiency. The other four case companies claim that they do not know what aspects they should look into. “Corporate culture” is the criterion emphasized by most of the interviewees but has not been discussed in current literatures. Moreover, the case companies have the same experience that suppliers have a tendency to say “yes” to all your requirements in order to get the contract. However, “yes” can also mean “no” when it comes to deliver those promises. Thus, all case companies want to find out whether potential suppliers are only interested in money or they also value commitments and are willing to build long-term relationships. Company D has unique philosophy in sensing suppliers’ corporate culture. It is considered as strength if the supplier shows the weakness to potential buyers. Since in certain cultures, showing weakness can be linked to aspects such as “losing face”. However, once the supplier states that “Sorry, we are not able to meet your requirements, we are not good at this.” Then Company D knows this supplier is trustworthy and next time they will be more confident in what the supplier confirm it is capable of.

Kahraman et al (2003) argue that suppliers should possess adequate resources in order to meet client’s requirements. According to empirical findings, this is the criterion highlighted by all the case companies. Energy supply, well established supply conditions, well-functioning production lines, and skilled labor forces are the four factors most emphasized by the case companies.

Literatures claim that suppliers’ communication effectiveness and negotiation flexibility should be evaluated before making the vendor selection decision (Min, 1993; Ndubisi, 2011). Linc Sourcing indicates that potential suppliers are supposed to communicate in a swift, straightforward and effective way. Suppliers’ language capability is the major factor they evaluate. Regarding negotiation flexibility, what’s coherent in most of the case studies is the emphasis of flexible purchasing volumes. Due to the small purchasing volumes SMEs normally order, the empirical findings indicates that the supplier’s willingness of accepting low quantity orders is one of the most important vendor selection criteria.

In regard to CSR, literature claims that sourcing organizations need to pay more attention to the environmental issues and to integrate environmental criteria into vendor selection process (Walton et al, 1998). Humphreys et al. (2003) propose an environmental framework for incorporating both quantitative and qualitative environmental criteria to the vendor selection process. The empirical findings indicate that only half of the case organizations investigate suppliers' CSR issues and none of them consider it as a decisive criterion. However, besides concerning the environmental issues emphasized by literatures, those four case organizations also require suppliers to comply with national laws and regulations and with international conventions concerning working conditions, human rights and child labor.

The literature argues that sourcing organizations should thoroughly examine the potential supplier's quality systems in order to ensure the consistent quality of required products (Min and Galle, 1991). For all the case studies, well functioning and well thought-out quality systems are highlighted. Moreover, suppliers' sub-suppliers' long-term commitments for quality control should also be evaluated. In the case of vantage, the founder argues that what kind of sub-suppliers suppliers have could affect the final product's performance. Furthermore, regarding control procedures, materials should be rigidly examined before starting production. Suppliers' quality certificate registration status (e.g. ISO9000) is considered as the good indicator for suppliers' quality systems (Kahraman et al, 2003). Nevertheless, seven out of eight case companies argue that quality certificates are not necessities due to the following two reasons: First, some small suppliers are capable of providing products with really good quality, but they do not have adequate resources to acquire those quality certificates. Case companies do not want to rule out part of potential suppliers only because they do not have quality certificates. Second, even if the supplier has quality certificates; the final product quality cannot be fully guaranteed.

The literature claims that suppliers from emerging markets should have good track records in exporting. It is especially preferable that suppliers have experience of doing business with western customers (Min, 1993). Consensus has been found in all case studies. All case organizations are inclined to evaluate suppliers' historical performance by checking references. And they prefer to do business with suppliers who have experience and good relationships with Western clients. However, it is usually easier said than done. In the case of Kominox, the managing director argues that checking references could also be useless. Because sometimes those referred companies are unwilling to share information with the company they consider as a potential competitor. Technical standards usually vary from country to country, suppliers ought to use either the international standards or the standards sourcing organizations are

currently using (Min, 1993). In the case of Kominox, the managing director argues that there is no need to put much effort in specification as long as the manufacturing is conducted according to international standards.

### **5.2.2 Product Attributes**

The literature claims that product performance and other product features need to be examined before making the vendor selection decision. Sourcing organizations ought to examine the important functional characteristics and to measure the usability of products by using product performance criteria. Moreover, since various purchased products have different usages due to their positions in the supply chain, sourcing organizations should inspect conformance to specifications accordingly (Kahraman et al, 2003). Nevertheless, in all case studies, case organizations simplify the selection criteria and put large emphasis on quality. Company D is the only case company factors products' environmental- friendly features into its selection criteria. All case organizations require product pictures and samples from suppliers. Then examine samples' quality according to the product specifications they have.

### **5.2.3 Service Attributes**

The literature argues that sourcing organizations should investigate not only the potential suppliers' capabilities but also their commitments for providing satisfactory delivery performance (Min, 1993). On-time delivery, low commodity damage rates and delivery adjustment flexibility are listed as the most important factors in current literatures (Kokangul and Susuz, 2009; Lin et al, 2010). Due to the long lead time , all case organizations consider on-time delivery as an important criterion. In the case of Company D, the zero-inventory feature makes it especially vital to pursue on-time delivery. However, in the case of Swedish Trade Council, less emphasis has been put on this issue. It is partially because standardized products are usually purchased by its clients. Moreover, those clients often keep large stocks in Sweden and they also have good estimates of the demands.

Literatures propose that sourcing organizations could evaluate the fitness of supplier's customer support by examining the following factors: accessibility, timeliness, responsiveness, dependability (Kahraman et al, 2003; Lin et al, 2011). Moreover, regarding customer support, technical assistance is the most emphasized dimension in current literatures (Min, 1993; Kahraman et al, 2003; Khan et al., 2011). The empirical findings indicate that service levels demanded by case organizations are largely

depending on what type of products they normally outsource. Compared to standardized products, outsourcing customized products requires a higher service level.

In the case of vantage and Company D, they both emphasize the importance of flexibility. Moreover, suppliers should be able to make adjustments according to clients' special requirements in a timely manner.

#### **5.2.4 Financial Terms**

Sinha et al. (2011) argue that the notion of "cost" should be clarified as an accumulation of the total purchasing cost rather than the price of certain products. Furthermore, hidden costs such as the operational expenses incurred in managing transactions should also be considered (Kahraman et al, 2003; Kang et al., 2009). However, only two case organizations factor total purchasing cost into vendor selection criteria, the rest just compare product price among potential suppliers.

The literature indicates that prepayments could hinder a sourcing organization's business due to the fact that capital is normally tied up (Min, 1993). Thus, payment terms should be investigated and negotiated before making the vendor selection decision. Nevertheless, in most of the case studies, payment terms are considered as a nonnegotiable industrial norm. Case organizations could do little to negotiate for a favorable payment terms. However, in the case of Roca and Kominox, they do find the possibility of getting favorable payment terms if long-term good relationships have been built.

### **5.3 Qualitative and Quantitative Methods**

Based on the theoretical framework current paper chose to divide the vendor selection methods into three categories. The first group deals with linear weighting models which aim to compare criteria among vendors. The second group consists of mathematical programming that incorporates criteria evaluation from a quantitative perspective. The third group includes methods to measure all the costs related to the vendor selection. However, none of the case organizations used the models suggested by the literature, although they followed the structure which the comparative model is built on. Their intentions of selecting vendors are moreover compatible with the multiple-objective approach argued in theory. For instance, they compare criteria among suppliers by evaluating pros and cons and strive to get an overview of costs. The SMEs' vendors are further selected basing on experience where the decision makers become highly

involved and have authority to take final decisions. Case organizations choose qualitative methods over sophisticated quantitative methods. The common patterns of the qualitative methods become visiting trade fairs and suppliers, tying personal relationships with managers and sensing the. Scholars on the other hand, emphasize supplier selection to be a multiple criteria problem best solved by combining qualitative and quantitative methods (Tahriri et al., 2008; Lin et al. 2010).

Significant for qualitative techniques is that they provide decision makers with tools to visualize and analyze problems by adopting holistic views. Insights are further gained by performing techniques such as brainstorming which can provide alternative solutions. The nature of quantitative techniques differs drastically from that of the qualitative approach. The former focuses on statistical approaches and comprises present with past to find precise numerical solutions (de Boer et al., 2001). On the contrary, a qualitative study brings larger spectrum for the decision maker to take a strategic decision. The methods described in existing literatures differ considerably to the methods used by the interviewed case companies. This may derive from the study's nature solely focuses on SMEs. What is confirmed by the literature is that all methods require resources and time, especially the quantitative methods. Unsurprisingly, to the characteristics of SMEs, they adopt less sophisticated methods in favor for more practical selection processes. The agents on the other hand showed to base their selection on more constantly structured step by step approaches. It starts from a helicopter perspective and progressively filters away unsuitable suppliers. However, none of the methods described in the literature were brought up during the interviews specifically. Instead the agents seemed to use their own methods, tailored to their needs. Also heavily emphasized by the agents, Kominox and Company D, and additionally confirmed by researchers (Liu, 2002), is the importance of "the human factor" in China. It embraces factors that evolve over time, and probably more easily detected and dealt with by using qualitative methods. The difficulty of converting SMEs' specific needs into measurable criteria is detected. This could be derived to the dynamic emerging market of China which makes it extra difficult to gather quantitative data. Not all Chinese suppliers, especially not smaller ones are consistent with administrative systems supporting quantitative data and processes compared to companies in west. All in all, the size of SMEs and their often limited capabilities and resources in addition to the autonomous of decision makers, support the case companies to focus on qualitative methods.

### 5.3.1 Applied Qualitative Approaches

To clarify how the studied case organizations select their suppliers, current paper presents qualitative approaches applied by both SMEs and the agents in below table. The common four phases are (1) preparation, (2) first round selection, (3) second round selection and (4) final decision.

**Table 5: Selection Methods**

Selection Methods		SMEs					Agents		
		Roca	Kominox	Metal Kompanient	CompanyD	Cellwood Machinery	STC	Vantage	Linc Sourcing
Preparation Phase	Local Networks	x	x	x	x	x	x	x	x
	Trade Fairs	x	x	x	x			x	
First Round Screening	Interview	x	x	x	x	x	x	x	x
Second Round Screening	Make a visit to Suppliers and Audit Facilities	x	x	x	x	x	x	x	x
	Prototype and Quotation	x	x	x	x	x	x	x	x
	Trial Order		x	x		x	x		
Final Decision	Single Source		x						x
	Back up Suppliers	x		x	x	x	x	x	x

Source: Authors' own elaboration

The first selection phase identified is preparation. It refers to the process of enriching the supplier database for future selection. Both the agents and SMEs use their contacts and trade fairs to find potential vendors. Although the agents are not dependent on trade fairs as the SMEs do. This can be explained by extensive networks and international contacts the case agents possess. Linc Sourcing, for example, states that its initial selection process concentrates on searching suppliers from its existing databases. Many of the SMEs had their own local offices or local agents in China. This is present in the case of Roca, Metallkompaniet, Cellwood Machinery and Company D.

The second phase identified is called “the first round screening” and it includes checking the company profile via web pages, references and telephone interview of the potential suppliers. In the case of Kominox, the managing director combines the



preparation step with the first round screening. At the same time as the managing directors attend the fairs he simultaneously gets opportunity to interview potential suppliers. In essence of this the steps overlap each other and should be seen as rather transparent. Nevertheless these steps are more transparent for the SMEs which form and adopt the selection process unique to the case. The agents on the other hand, perform a more structured and “professional” selection process more replicable from case to case.

The third phase is called “the second round screening” and is divided into three interlinked parts. The first part is followed by all case organizations and includes visiting the suppliers and audit facilities. In the case of Vantage, this step is taken by checking the production lines and asking line managers questions regarding quality control systems. Also workers are asked detailed questions to see whether they follow the instructions during production process. The second part includes prototypes and quotation, factors emphasized by all case organizations. The sequence of the first and second part can be switched. SMEs could decide which part to take first based on their specific situations. The third part considers trial orders which are not queried by Roca and Company D as well as two of the agents. This aspect differs specifically to SMEs which not always have volumes large enough to ask for trial orders.

Finally, after performed interviews, company visits, quotation and prototypes the firm will take a decision whether to choose back up suppliers, or concentrate on one supplier. In the case of Kominox, it prefers to have single source so as to increase the bargaining power and support long term relationships where mutual trust can be built. However, the large majority of the case organizations argue that choosing back up suppliers secures delivery time and gains overall stability of supply chain. A case organization rather unique to this is Linc Sourcing. Usually clients of Linc Sourcing employ one supplier; although in exceptional cases two suppliers are used to put pressure on the suppliers. Linc Sourcing’s approach is also unique in the sense that they strive to accumulate many clients on one supplier. In return, it brings bargaining power as well as their clients get opportunity to order smaller volumes and circumvent the barrier of “large” minimum order volume required by suppliers. The cost of transportation, brought by not filling a container, is another obstacle which is mitigated by this approach.

### **5.3.2 Vendor Selection Decision Making**

As previously discussed, none of the vendor evaluation models in the literature review are brought up during the interviews. However, all case organizations make their vendor selection decisions based on their own techniques. The methods used by the studied

cases resemble comparative weighting models but with no quantitative measures incorporated. Petroni, (2000) put categorical model in a context to include decisions based on experiences and personal judgments linked to historical data. Even though the studied SMEs do not use the categorical model spot on, it guides their decisions from the framework suggested in the categorical model. Case organizations perform rather practical vendor selecting approaches in the sense of basing decisions on personal judgments with previous experiences. Cellwood machinery and Company D also base their decisions on comparing alternative vendors by using historical data, especially focusing on references and additional information gathered by local agents. Also consistent with research (Lieberman-Yaconi et al., 2010) both Kominox and Company D claim to trust their “gut feeling” by weighting the potential vendor’s overall performance. Subsequently, the intuitions of strong decision makers influence the decision process.

Yet, case SMEs do not use the categorical model fully out, some of them ticked pros and cons for potential suppliers. However, the agents on the other hand showed a pattern of using similar approaches closely related to the categorical model. They adopted structured filtering systems which seek to find the most potential suppliers specific to a client’s requirement. Case agents approach potential suppliers one by one analyzing and classifying them in accordance of suitability. Generally speaking, the multiple-case study indicates that most SMEs make their vendor selection decisions based on managers’ own experiences and in exceptional cases with the help of agents.

## Conclusion

*This chapter initially reflects on what contributions current paper brings. Following paragraphs consist of three phases that reflect the SMEs vendor selection with underlying implications, followed by a discussion and possible areas for future research.*

### 6.1 Contribution

Evidently, vendor selection has attracted researchers' interests for the past decades. However, SMEs' vendor selection in China is still an undiscovered area. This section aims to answer the research question of how do SMEs conduct vendor selections in China. Current paper approaches this by conducting an explorative study with five Swedish SMEs and three agents. The findings will be discussed in three areas consistent with vendor selection. First, the driving forces are discussed in order to understand "why" SMEs make the offshore outsourcing decision. Second, applicable selection criteria are discussed in order to discover on "what" basis SMEs could make the vendor selection. Third, the selection approaches are discussed in order to explore "how" SMEs could make the vendor selection decision.

### 6.2 Driving Forces

The sourcing organization needs to detect its own weaknesses and strengths with threats and opportunities in back of their mind. Subsequently, it can proceed by analyzing the transaction cost in sense of make or buy. The multiple-case study indicates that cost reduction is the most important internal driving force for SMEs' outsourcing to China, which is also in line with the motivations of MNEs. Comparison to large firms, SMEs face several challenges due to size and resource constrains. The firm's best solution to overcome these constraints is to free up limited resources by outsourcing non-core business functions to China. Moreover, flexibility and extending relationship strategic partner are also brought up by case organizations.

The multiple-case study indicates that globalization, liberalization and growth of emerging market are most emphasized external driving forces. When SMEs consider the option of offshore outsourcing, they should have a broader vision. That is to take the whole value chain into consideration. SMEs have to think about not only themselves and their customers but also their customer's customer. Since nowadays China is compared to a "world factory", it is also a strategic decision to follow that trend and to gain benefits in the long term. Well developed infrastructures, vast increased number of qualified suppliers, favorable exporting policies all contribute to the increasing attractiveness of China as SMEs' outsourcing destination.

### **6.3 Vendor Selection Criteria**

The multiple-case study demonstrates that SMEs' vendor selection is a broad comparison of suppliers by adopting a common set of criteria. Moreover, the common set of criteria adopted by case organizations comprises the following four criteria categories: supplier characteristics, product attributes, service attributes, and financial attributes, which is in conformity with criteria classifications listed in current literatures. However, due to the limited resources and capabilities SMEs possess and small purchasing volumes they normally order, SMEs do have different emphasis regarding selection criteria when compared to current literatures. The multiple-case study further indicates that SMEs simplify the selection criteria and only focus on core factors. To be more specific, product portfolio, corporate culture, support resources, quality systems, internationalization, negotiability, product performance, customer support, delivery performance and cost are most emphasized criteria in empirical studies.

Moreover; the multiple-case study demonstrates that SMEs pay more attention to qualitative criteria rather than quantitative ones. There are two reasons behind this phenomenon. First, SMEs are inclined to adopt qualitative vendor selection approaches and the nature of qualitative methods is in favor of using qualitative criteria. Second, it is rather hard to gather quantitative data in China due to the non-transparent business context and undeveloped documentation systems.

In regard to criteria measurements, SMEs differ from current literatures in many aspects. For instance, most of the case organizations do not check suppliers' quality certificate registration status, even though it is highly recommended by current literatures. Furthermore, most case organizations choose small vendors over large ones, which is contrary to the suggestion given by literatures.

On the whole, the features SMEs possessing in vendor selection criteria is rather related

to the characteristics SMEs have. The limited resources and small purchasing volumes do have huge impacts on SMEs in regard to vendor selection criteria.

## **6.4 Vendor Selection Methods**

Contrary to current literatures, the multiple-case study demonstrates that SMEs choose qualitative vendor selection approaches over quantitative methods. Three reasons are implied by empirical studies. First, for SMEs, there's no demand to adopt quantitative methods. The vendor selection decision making in SMEs is less structured and the autonomous of decision makers is in favor of choosing qualitative approaches. Second, implementing quantitative methods is beyond SMEs capabilities. Not only because they do not have adequate resources and time to dedicate in the complicated methods, but also owing to difficulties resided in collecting quantitative data in China. Third, significant for qualitative approaches are that it provides decision makers with tools to visualize and analyze problems by adapt holistic views.

The pattern of qualitative vendor selection approaches conducted by both SMEs and agents has been identified through the multiple-case study. Four main phases consists of preparation, first round selection, second round selection and final decision. In preparation phase, consensus has been found that all case organizations rely on local networks for seeking potential suppliers. Establishing local offices in China and hiring local staff makes the vendor selection process more effective and efficient. Attending trade fairs is also considered as a good approach to search for potential suppliers especially for SMEs who do not have adequate contacts or who are looking for suppliers for new products. In the first round selection, SMEs are supposed to check suppliers' company profiles via web pages, references and telephone interviews so as to shorten the list of potential suppliers. In the second round selection, two interrelated steps are taken. SMEs could make a visit to suppliers and audit facilities, check prototype and quotation. However, the sequence of those two steps can be switched. SMEs could decide which step to take first based on their specific situations. During the company visit, criteria discussed previously are evaluated. Some case organizations also conduct a trial order in second round selection in order to ensure that suppliers are able to deliver the performance they promised.

In the final decision making phase, SMEs is supposed to make the trade-offs between bargaining power and stability of supply, which reflects on relying on single source or back up suppliers. Just as the old saying "do not put all your eggs in one basket", the multiple-case study indicates that back up supplier is more beneficial.

## **6.5 Discussions**

The multiple-case study indicates that for those SMEs who do not have any experience of outsourcing and also do not have much resources and time to dedicate in vendor selections, the cooperation with an intermediary is recommended. When SMEs have a well thought through plan with accumulated experience in outsourcing in China, they can shift from indirect sourcing to direct sourcing.

For those SMEs who want to make the vendor selection all by themselves. Some recommendations will be discussed. SMEs should be aware of the driving forces behind the outsourcing decision. Especially they ought to pay attention to internal driving forces so as to make vendor selection strategies accordingly. Based on the motivations and in light of various considerations, SMEs should choose selection criteria and also the criteria measurements which most suit SMEs specific circumstances. For instance, standardized products and customized products have different emphasis in relation to selection criteria. SMEs that mainly purchase customized products should pay more attention to criteria related to delivery performance and customer support. Due to the limitations SMEs have, much effort should be put in matchmaking. In another word, suppliers and SMEs must fit each other in regard to company size, performance requirements, and corporate culture. SMEs in the same industry could combine together in order to increase bargaining power and cope with issues related to small purchasing volumes.

Worth noticing that, even though all the case organizations adopt qualitative vendor selection approaches, it does not mean qualitative approaches are flawless. One fact is that qualitative approaches bring severe challenges to the personal judgment. E.J. Wang et al. (2010) indicate that vendor selection based on accumulated experience is rarely effective or scientific due to the reliance on subjective judgment and lack of systematic analysis. In that sense, SMEs should try to streamline the vendor selection processes and explore unbiased vendor selection methods

## **6.6 Further Research**

Overall, firms driving forces to perform offshore outsourcing are increase efficiency and reduce costs. A crucial decision is then to choose the vendor able to support these driving forces. In relation to this, an everyday increasing number of SMEs looking for increased efficiency and reduced costs on global markets. Meanwhile, the research of

SMEs internalization is still lacking in many areas, significantly in regard to SMEs vendor selection. Instead, much focus has been directed to the characteristics of large companies and how they select their vendors. Subsequently, current literature is consistent with theoretical framework of how the “overall” company selects the right vendor. Significant for present study however are SMEs not adopting the selection methods discussed in present literature.

In contrast, an obvious and surprising finding in current paper is that smaller firms exclude quantitative selection methods. To select the most efficient vendor literature suggests a combination of qualitative and quantitative methods. This brings an important question to be answered of whether it is more beneficial for SMEs to select their vendors by qualitative methods in favor of quantitative methods. The question includes variables in regard to eventual size disadvantages of SMEs and the characteristics of emerging markets.

Another important issue, not earlier emphasized by scholars, is how the SMEs can select the most effective vendor. An issue not answered in current paper. Instead, this study’s focus has been to understand the unknown area of how SMEs select their vendors. A natural following up question is then how the western SMEs do the most effective vendor selection. A question which thoroughly investigated would bring a framework for SMEs to base their vendor selections on.

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**Introduction Questions:**

- Could you give us a brief description about the company you work for and the responsibilities you have?
- How many years experience of offshore outsourcing do you and your company have?

**Questions in regard to Driving Forces:****Reflective Question:**

- What were the firm-specific driving forces (motivations) behind the offshore outsourcing decision?

**Specific Questions:**

- What internal factors influenced or forced your company to offshore outsource?
- What external factors influenced or forced your company to offshore outsource?

**Questions in regard to Criteria Used:****Reflective Question:**

- What criteria were used by the case company to select the potential vendors? (be as comprehensive as possible)

**Specific Question:**

- What Supplier Characteristics does your company consider in vendor selection? (Financial attributes, Managerial attributes, Support resources, Quality systems and processes, Internationalization, Environmental performance and Negotiability.)
- What Product Attributes does your company consider in vendor selection? (Product Performance and Other product features.)

- What Service Attributes does your company consider in vendors selection? (Delivery performance and Customer support.)
- What Financial Terms does you company consider in vendor selection? (Cost and Payment terms.)
- What Business Contexts does your company consider in vendor selection? (Perceived risks and Trade restriction.)

### **Questions in Regard to Vendor Selection Method:**

#### **Reflective Question**

- What vendor evaluation techniques were adopted by the case company? And explain briefly how it worked.

#### **Specific Questions:**

- Does your company use Qualitative methods to evaluate suppliers?
- Does your company use Quantitative methods to evaluate suppliers?
- What is the most effective way to select a vendor?