



How does the industry work with sourcing decisions? Case study at two Swedish companies

Sourcing
decisions

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Abstract

Purpose – The objective of this paper is to present how two Swedish companies work, or plan to work, with sourcing decisions. The aim is furthermore to analyze if their decision process, or parts of it, can be used as a base for building a rightsourcing decision model. In this paper rightsourcing is defined as; “the process to actively apply in-and outsourcing strategically to be competitive now and in the future”.

Design/methodology/approach – Since the business environment is dynamic and the global aspects are increasing, companies tend to focus on what they do best-their core competence. The concept of outsourcing has, therefore, been growing rapidly during the last decade. Many companies seem to have a vague understanding about the risks and benefits of outsourcing, except from a general idea that it will reduce cost. Many companies hence experience that sourcing decisions are complex and the need for a model supporting sourcing decision exist within many corporations. This is accomplished through a literature overview and a multiple case study.

Findings – The results indicate that a model for sourcing decisions ought to include, or be based on, following aspects, e.g. the companies overall strategy, the companies core competence, both qualitative and quantitative data and risk analysis. The sourcing process also ought to be made with a process approach, avoiding functional sub-optimization. The results also indicated that financial evaluation and documentation of the decision is important.

Research limitations/implications – The multiple case study was conducted in one mechanical company and one engineering company from Sweden. The fact that the study only included two studies could affect the possibility to generalize the result.

Originality/value – This paper offers help to companies that consider sourcing decisions.

Keywords Resource management, Risk analysis, Corporate strategy, Decision making, Competences, Sweden

Paper type Case study

Introduction

Industry has changed in many different ways due to the global aspects. The development within areas of, e.g. information and communication techniques has made the geographical distance between companies less important. This expansion has made it possible to easily co-operate with companies in different countries and to produce products at lowest cost. But the globalization does not only mean that companies can act on a larger market and sell more products, they will also obtain larger competition. To be able to survive and be profitable in this environment, companies tend to use outsourcing in a



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larger extent. This is confirmed by, e.g. Bryce and Useem (1998) who pronounce that the concept of outsourcing has during the 1990's been growing rapidly.

What kind of activities companies choose to outsource, differ from company to company. Historically, companies started to outsource activities that were considered not to add value for the customer like, e.g. cleaning, catering and gardening. Later on, the focus of outsourcing activities moved toward the part of the value chain as the company considered as not so important. Example of activities that were outsourced could be IS/IT, distribution and accounting systems (Cross, 1995; Johnson and Schneider, 1995; Lacy and Willcocks, 1998). Other strategies related to outsourcing have been to outsource processes that are close to the company's core competence. Some companies have even outsourced so much of their production that they have lost their ability to develop new products (Tisdale, 1994).

Many companies, however, seem to only have a vague understanding about the risks and benefits of outsourcing, except from a general idea that it will reduce cost, gain access to other companies' competence and allow them to focus on their core competencies (Smith *et al.*,1998). It is of great importance that companies are aware of both advantages and disadvantage about sourcing since the results of the decision are dependent on the employees and their skills. A questionnaire about sourcing decisions (Brannemo, 2005) indicates that companies consider sourcing decisions as complex and companies tend to have a lack of models supporting the decision process. Thus, the need for a model supporting sourcing decisions is large. The objective of this paper is, therefore, to identify how two Swedish companies work, or plan to work, with sourcing decisions. The aim is furthermore to analyze if their decision process, or parts of it, can be used as a base for building a sourcing decision model.

This paper is structured as follows. First, in the theoretical overview, relevant theories connected to the sourcing area are described from an academic view. Secondly, the methodology for this paper is described. Furthermore, the paper describes the results from a multiple case study made in Sweden. Conclusions drawn from both the case study and the literature are also presented.

Theoretical overview

The issue whether to make all manufacturing processes in-house or buy it from external suppliers has been an important issue for both the industry and the academy during a long time. Theories about sourcing have, according to Probert *et al.* (2000), been developed from different perspectives; the cost and strategic perspective.

The first perspective, cost, aims to answer the sourcing decision with cost calculations as base (Mock and Millar, 1970; Yoon and Naadinutha, 1994; Poppo *et al.*, 1995). The transaction cost theory is the foundation for many of the sourcing theories that concern cost perspective. The transaction cost originates from Coase (1937) but nowadays when taking about transaction cost many people referers to Williamson (1975). For more information about transaction cost and total cost analysis; Walker (1988), Ellram and Maltz (1995), Walker and Webber (1984), Arnold (2000), Cox (1996) and Williamson (1991), are example of researcher that has been written about that area.

The second angle on sourcing literature, which Probert *et al.* (2000) points out, is the strategic perspective, which focuses on further aspects to the sourcing decision besides cost. Jennings (1997), Ford *et al.* (1993), Welch and Nayak (1992), Quinn (1999), Probert (1996), Insinga and Werle (2000) and Fill and Vissers (2000) are examples of researcher

that all have been focusing on more aspects to consider before taking a sourcing decision besides the cost. Momme and Hvolby (2002) are also an example of researcher who also has developed a more general model for sourcing decisions. They have defined their outsourcing process in six steps; competence analysis, assessment and approvals, contract negotiation, project execution and transfer, managing relationships, and contract termination.

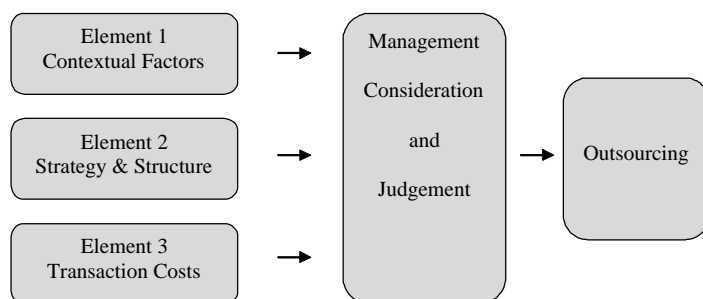
Although the strategic implications of sourcing questions have been discussed for many years, sourcing decisions are often made purely on the basis of cost (Probert *et al.*, 2000) and many companies lack a firm basis for the evaluation of the sourcing decision. McIvor (2000) have, however, developed a model for outsourcing decisions that combine the sourcing decision with the companies' overall strategy. In the following section of the theoretical chapter, three models for outsourcing decision are described. This is done so the reader can get an overview of theoretical outsourcing models and to be able to see which parameters these theoretical models contain.

Sourcing model 1

Fill and Visser (2000) have developed a composite outsourcing decision framework, see Figure 1. The framework they suggest consists of three main components; the first seeks to develop the unique contextual factors associated with each decision, the second considers the strategic implications of deciding to outsource and the third investigates the traditional cost aspects (Fill and Visser, 2000).

In the first stage, contextual factors, both internal and external factors should be considered, which can be either quantifiable or non-quantifiable criteria's. Quantifiable criteria are costs, increased cover of fixed costs, investments and revenues. Non-quantifiable criteria's are according to Fill and Visser; strategic interest, confidentiality, linkage with operations, stability of employment, management and dependence on suppliers. All these factors are judged by a Linkert scale where 1 is negative (low desirability) to 5 positive (a high desire to outsource). By adding the score for both the external and internal factors a total score will indicate if outsourcing is the best strategy.

The second part of the framework concerns consideration of the strategic and structural dimensions. A qualitative guideline with nine questions will help companies to consider the structural aspects associated with the decision and help focus on how integrated the organization should be. The questions consider, e.g. how unique the products are, how much capital the products will require and the suppliers capacity



Source: Adapted from Fill and Visser (2000), p. 46

Figure 1.
Outsourcing model

and competence. The third element of the model, which concerns costs, is examined by transactions cost theory. Two types of cost are considered; production cost and coordination or transaction costs. For a more detailed description about the sourcing model, read Fill and Visser (2000).

Sourcing model 2

McIvor (2000) have developed an outsourcing which is built on three key aspects; the value chain perspective, core competency thinking and the impact of the supply base. This model has a strategic approach built to the sourcing decision process. The sourcing model consists of four sequential stages, as can be seen in Figure 2.

Stage 1 is about identifying the core activities and non-core activities of the organization. This stage should be performed by top-management together with inputs from lower levels in the organization, in a cross functional team. Stage 2 concerns

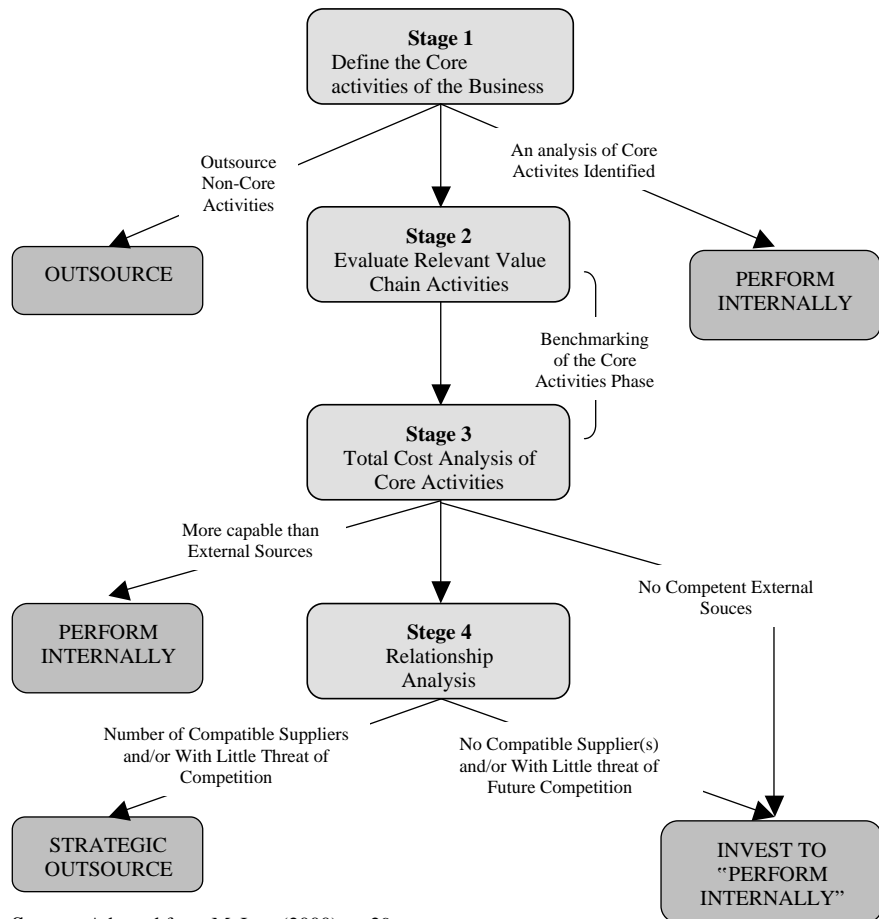


Figure 2.
Outsourcing model

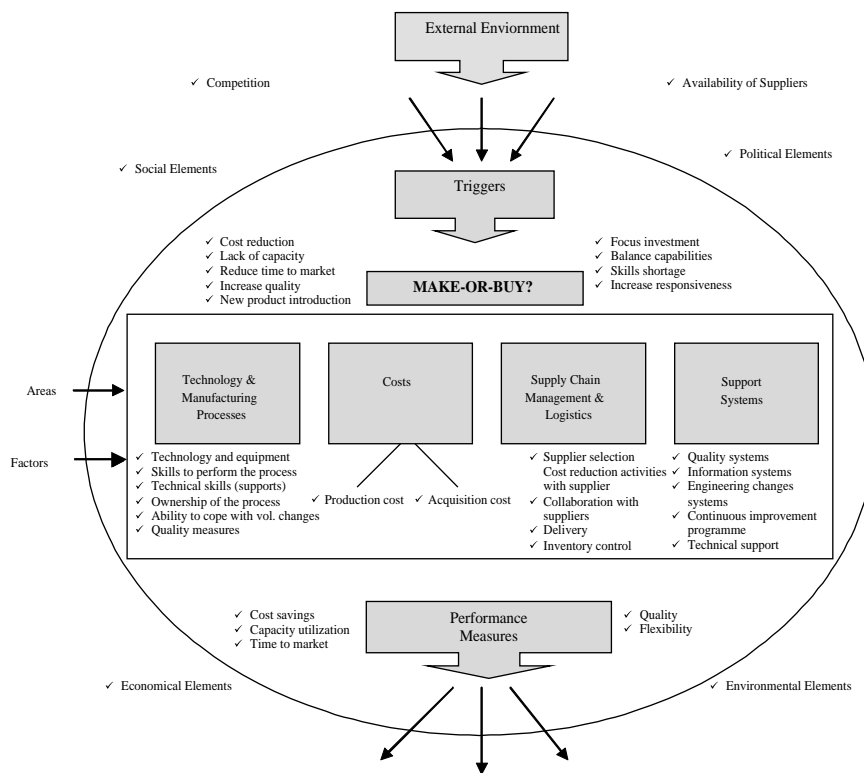
Source: Adapted from McIvor (2000), p. 29

analyze of the competencies of the company in these core activities in relation to potential external sources (a benchmarking against external suppliers). Stage 3, total cost analysis of core activities, attempt to measure all the actual and potential costs involved in sourcing the activity-internally or externally. Owing to the fact that many business relations are built on long-term contract is it, according to McIvor (2000) important to make a relationship analysis, Stage 4. For a more detailed description about the sourcing model, read McIvor (2000).

Sourcing model 3

Probert *et al.* (2000) have developed a framework, see Figure 3, which aims to provide a graphical representation of why make-or-buy decisions are made and to show relevant dimensions to be studied in approaching make-or-buy decisions.

The model begins with analyzing the external environment by looking at political aspects, social factors, availability of suppliers and competition from other suppliers. These elements, which the company has little or no influence over, activates triggers for the make-or-buy analysis. The triggers are reasons for undertaking the make-or-buy review and can easily be identified by asking why the decision is being made. Example of trigger factors are; cost reduction, lack of capacity, higher



Source: Adapted from Probert *et al.* (2000), p. 1322

Figure 3. Sourcing model

quality and new product characteristics, which leads to the question if the company should buy from an external supplier or manufacturing internal.

Four main areas should, according to Probert *et al.*, be compared and evaluated during the sourcing decision:

- (1) *Technology and manufacturing processes.* Technology and equipment, and skills to perform and support the process.
- (2) *Costs.* Production costs and acquisition costs.
- (3) *Supply chain management and logistics.* Choice of supplier, collaboration with suppliers and time to delivery.
- (4) *Support systems.* Quality and information systems and technical service.

This model points out the importance of cost accounting and that the decision should be followed up after some time. For a more detailed description about the sourcing model, read Probert *et al.* (2000).

Rightsourcing

Owing to the outsourcing trend the last decades have many companies been focusing on outsourcing and been using the concept in quite a large extent. To be able to survive in the long run it is, however, important for companies to think and react in a strategic approach. Only sourcing activities in one direction, to, e.g. external suppliers, are almost never an optimal solution for any company. Theories about in and outsourcing also indicate that both concepts have advantages and disadvantages, for further discussion about sourcing see Hägg *et al.* (2004). A continuous process between in and outsourcing can, therefore, help companies to optimize their production system. Companies ought to use the right strategy for the right situation-rightsourcing. In this paper rightsourcing is defined as (Hägg *et al.*, 2004):

The process to actively apply in-and outsourcing on a strategic approach to be competitive now and in the future.

The idea behind rightsourcing is that companies should not use in-or outsourcing without consideration; instead they should use both of them in a strategic way to improve their competitive priorities. There are three aspects in the definition of rightsourcing that the author point out to be especially significant:

- (1) The first important aspect, in the definition, is to actively apply in-and outsourcing. The thought with rightsourcing is that it should not be a “surprise” or “happening” that the company outsources or insources parts of their organization. The decision shall be well analyzed before being taken.
- (2) The second significant aspect is the strategic approach for sourcing questions. Companies shall follow their business and production strategy when taking the sourcing decision.
- (3) The third significant aspect about rightsourcing is to be competitive now and in the future. To survive and be able to compete in the long run companies have to think and act in a holistic view and avoid sub optimization. There shall also be a continuous process between in-and outsourcing, only acting in one direction can almost never be optimal for any company.

Methodology

This paper is based on a theoretical overview and a multiple case study. Theoretical studies on insourcing and outsourcing and areas relevant to the two topics were made before the multiple case study started. However, focus of the theoretical overview was on different models for sourcing decisions. The theoretical overview became a base for the interview questions.

The methodology case study was chosen since it is relatively efficient ways of investigate relations between companies (Easton, 1998). Data were primary collected through interviews, documentations, and direct observation during the case study. The authors' opinion is that these sources are complementary and can, therefore, give a comprehensive picture of the companies' relationship with external suppliers and their sourcing strategy. The study was conducted between autumn 2003 to summer 2004 in one mechanical company and one engineering company, both located in Sweden.

To achieve a wide perspective of the sourcing decision, interviews were made in different departments and on different levels within the companies. The interviews were semi-structured and the persons interviewed were; the manager of production, financial manager, controllers, chief engineers, product development managers, project leaders, personnel managers, manager of logistics and members of the union. There were altogether 25 interviews made for this paper.

Case study

The multiple case study were conducted at two Swedish companies, the objective was to identify how they work, or plan to work, with their sourcing process. Both companies have during last year been improving their sourcing process and the author hereby describes how their processes were interpreted.

Case study company 1

Case study company 1 competes within the mechanical industry and is represented in over 40 countries and has over 2,500 employees all over the world and operates in a turbulent and global market. The company consists of three business units; each one responsible for different kinds of products. Business unit 1 has rather mature products that have been produced for quite a long time. This unit has only been dealing with few outsourcing cases during the years. Business unit two has a wider range of products and also a larger amount of assembly. The complexity of the products is in this unit, is according to the company, not very high. This unit has been dealing with some sourcing decisions during the last decade. Business unit three consists of simpler products, which are exposed for a huge competition from other companies. Focus on decreasing the cost is exceedingly high within this business unit.

The competition from other companies is increasing and it is, according to the production manager, harder to stay competitive now than it was a decade ago. It is, therefore, according to him, of great importance that the company manufacturing the right products in-house and buy the rest from suppliers. About one year ago, the management team of the case study company, perceived that they had no standardized method of dealing with sourcing questions. "All three of our business units had their own way of accomplishing the sourcing process and the process never looked the same from one time to another" says the company's controller. The company, therefore,

started to review their sourcing process. The management team established a cross functional group that worked with improving all three sourcing processes into one united, structured model. People from, e.g. the management team, the purchasing department, the production department, the financial department were involved. Even union representatives were highly involved, since the case study company is of the opinion that sourcing questions almost always affect the staff. The new model is almost finished and is now being tested, before implemented in the entire company. It is of great significance for the case study company that the decision should be well analyzed and structured but should not demand a large amount of resources.

Sourcing model. For every sourcing decision a cross functional group will be put together. They will evaluate the alternatives of in-house production or buying from external suppliers. This group analyzes the sourcing decision according to a developed process map, a model. The model consists of six sections:

- (1) analyzing the alternatives;
- (2) decision;
- (3) test the decision in real life;
- (4) accomplish the decision;
- (5) financial evaluation; and
- (6) evaluate the decision.

In the first section, the largest, the alternatives are compared against the company's business and production strategy. The alternatives are also matched with the company's, in advanced defined, core competence. The amount of resources needed within the area will be evaluated. The strength and weaknesses for both alternatives are evaluated as well as the long-term consequences, e.g. the companies' future possibility to develop new product. The total cost, for both alternatives, is thereafter calculated by the financial department. The controller points out that in this section, they attempt to evaluate aspects those are difficult to measure in monetary terms like, e.g. the external suppliers flexibility. This is done by a pre-determined template, made by the controller with input from the cross-functional group, so that every decision will be calculated in the same way.

In Section (2) a decision shall, after all above-mentioned areas have been evaluated and analyzed, be taken. If the decision is to produce in-house, the production department starts to prepare the in-house production, maybe after some improvements or investments. If the decision is to go on with an external supplier a test order will be carried out in Section (3). During the test order the case study company can evaluate the result. If the delivery is accepted the decision is completed in Section (4). A financial evaluation shall be performed in Section (5). After a while on every sourcing decision and the decision ought to be evaluated in Section (6).

Decision authority. The model describes which task each person in the project group is responsible for, what responsible areas each different department has is also described in the process map. E.g. the management team is responsible for updating and implementing the business and productions strategy that the sourcing decision are based on, the project group is responsible for evaluating parameters that are difficult to measure in monetary terms. The financial department is responsible for calculating the total cost for the different alternatives and the purchasing department is in charge of choosing appropriate external suppliers.

The decision-making authority, when it comes to choose internal or external suppliers, has been escalated in the organization. Most of the decisions are taken in the management team of the organization. When the decisions have a huge impact on the company's organization, the decision-making authority is leveraged higher to the group executive board. "This level of decision authority is chosen to avoid sub optimization" according to the controller.

Documentation. Every sourcing decision should, according to one of the representative for the union, be documented in such a way that other departments of the company can take part of the material behind the decision if needed.

Case study company 2

Case study company 2 is a technical engineering company that competes within the mechanical industry. It is a global company with sales departments in over 100 countries; in Sweden they have approximately 70 employees. This company has for a long time had a large amount of competitors and the focus on developing new competitive products as well as improving existing ones is huge. Since, this company, according to the production manager:

... has production in many countries, they are constantly dealing with questions like internal in-or outsourcing. Where in the world, within the business group, shall the products be produced to maximize the quality, the productivity and minimize the total cost, etc.?

Case study company 2 has, according to the production manager, historically been taking sourcing decisions in a relatively decentralized manner without any support or model. The management team, therefore, decided to develop a model that could guide the company to discuss sourcing questions regularly as well as making the decision on a well-analyzed foundation. The main purpose was to structure the sourcing decisions so it would not be too bureaucratic but still covers the major aspects related to the decision. The new model is not yet implemented in the company; they have still some minor changes to make.

Sourcing model. For this company, a sourcing evaluation shall be made if some of following scenario is under consideration.

- A new product is under development. Where should it be produced?
- Current products could be moved from internal to external supplier.
- Current products could be moved from external to internal suppliers.
- Current products could be moved within the business-the same evaluation should be made when considering moving production between different locations.

A cross-functional team begins with describing the cases involved for consideration. The team should classify the activities, according to the model, too see if they are proper for in-house production, outsourcing or if more capability must be developed internally. This classification takes the activities future possibility to yield competitive advantage into consideration but also current state of capability. The team should after that, estimate the effects of in-house production or outsourcing. There are both qualitative and quantitative aspects to take into consideration. Some example of quantitative aspects they estimates are; effects on net price, made by one specific calculation, effects on variable costs, effects in terms of currency exposure and effects on sales volume, production volume and stock level. Examples of qualitative aspects to analyze are; control of product quality, effects on competence needed for the future,

effects on time to market and flexibility. After the above-mentioned areas are investigated, the project group present a summary of the investigation together with a recommendation for the company's local management. The case study company points out the importance of strong focus during the decision process since these kinds of decisions often needs to be taken rather rapidly.

Decision authority. According to the case study company there must be a top-down approach when dealing with sourcing questions since local management otherwise tends to be conservative and favor local activities. The decision can be delegated within the organization dependent on the size of the structural change.

Documentation. Case study company 2 has not yet decided how the decision shall be documented or by whom. That the decision shall be documented goes without saying according to the company.

Results

During the theoretical overview, three models for outsourcing decisions were analyzed. Seven parameters were found that the different authors believed should be analyzed before taking the sourcing decision. The parameters found can be seen in Table I. Neither of the authors had a holistic model that included all seven parameters in their outsourcing decision model.

Besides the parameters found in the models; McIvor points out the importance of people working in cross-functional teams when dealing with sourcing decisions. Each team should include a broad section of members-functionally, divisionally and hierarchically. Probert *et al.* also points out the importance of measuring and following up the results from the outsourcing cases.

The results from the empirical study showed that both case study companies have for many years had a lack of support when dealing with sourcing questions. The decision has earlier been made rather decentralized and what has been analyzed differs from project leader to project leader. The process has, at least for case study company 2, historically taken too long time and demanded a lot of resources.

Sourcing model

Both companies have earlier experienced sub optimization and are, therefore, working with sourcing questions in cross functional groups. The two sourcing models look rather different but have some aspects similar to each other; they both base their decision on their business and production strategy and their core competence (both companies have

Contents	Sourcing models			Case study	
	Model by Fill and Visser	Model by McIvor	Model by Probert	Company 1	Company 2
Cost calculation	X	X	X	X	X
Qualitative criteria	X			X	X
Quantitative criteria	X			X	X
Core competence		X		X	X
Strategy	X	X		X	X
Logistics			X		
Benchmarking		X	X		X

Table I.
Summary of theoretical
models for sourcing
decisions

this as their base but how to decide what is core competence is done in different ways). Both companies have a standardized way of calculating quantitative data in every sourcing decision but they do it in different ways. Also qualitative data were estimated in both models, not the same data but both have still an attempt to evaluate important information. Case study company 1 have a test phase in their sourcing model which made it possible to see if the decision was possible or even correct. That company also had a phase of financial evaluation after every sourcing decision.

Decision authority

Both case study companies have chosen to avoid a decentralized sourcing decision. Case study company 1 has chosen to let the management team of the organization or the group executive board decide in this kind of decisions. Case study company 2 has also chosen a top-down approach but with a possibility to delegate within the organization.

Documentation

None of the two case study companies had previously documented their in-or-outsourcing decisions. That made it difficult, or maybe even impossible, for them to go back and see if the decision is still strategically right for them.

Conclusions

The objective of this paper was to identify how two Swedish companies work, or plan to work, with sourcing decisions. Furthermore, was the aim to analyze if their decision process, or parts of it, could be used as a base for building a rightsourcing decision model. In this chapter, conclusions from both the theory and the multiple case study will be drawn.

Sourcing model

Both the case study and theories about sourcing decisions indicates (Brannemo, 2005; McIvor, 2000) that the need for a model supporting sourcing decision exist within many corporations. Even though there are many theoretical models for sourcing decisions made by, e.g. McIvor (2000), Fill and Vissers (2000), Insinga and Werle (2000), Welch and Nayak (1992) and Probert (1996) companies tend to have a lack of support. Both case study companies indicated this since none of the two companies have historically been using a theoretical model as support for the sourcing decisions. One reason for that is, as pointed out in the case study, that companies do not have the large amount of resources required by the theoretical models. Another reason could be that many of the developed models are just theoretical models and are never tested in real life. Or maybe the theoretical models are not spread to the industry.

A strategic approach when it comes to sourcing decision is used by both case study companies; they tend to follow their business and production strategy as well as focusing on their core competence. This strategic approach is also adopted by McIvor (2000) and Fill and Visser (2000) who argue that models for sourcing decisions shall be holistic and follow the companies overall strategy. McIvor (2000) also consider the company's core competence as a base for the decision. The author is due to the above mentioned reasons convinced that basing the sourcing decision on the company's overall strategy and core competence is the correct way of dealing with sourcing questions. If a company does not have an implemented business-or productions

strategy and if the company, therefore, does not know what to focus on in the future they should not be thinking about in or outsourcing since the decision can lead to huge negative effects if the wrong alternative is chosen.

When analyzing the theoretical outsourcing models it was clear that cost was an important aspect that ought to be analyzed before taking a sourcing decision since all three outsourcing models included cost. How the cost was calculated differs even though from the three authors; transaction cost analysis, activity-based cost or only a calculation of production cost together with acquisition cost. Both case study companies consider the total cost as an important parameter to consider; they calculated, however, the cost in different ways. A conclusion from this is that the cost probably ought to be calculated and analyzed before taking a sourcing decision. Another conclusion is that the cost can be calculated in many different way, it is however, important that the company calculates the total cost in the same way every time.

Since, not all parameters are measurable in monetary terms, both qualitative and quantitative criteria's should, according to Fill and Visser (2000), be evaluated when it comes to sourcing decisions. This was also adopted by both case study companies which evaluated qualitative and quantitative data and considered the output as important parameters for the decision. A conclusion from this study is that both qualitative and quantitative data ought to be evaluated and considered before taking a sourcing decision. An example of a quantitative parameter that could be considered is the company's ability to produce similar products in the future.

McIvor (2000) and Probert *et al.* (2000) points out the significance of benchmarking. McIvor explains that each selected core activity must be benchmarked against the capabilities of all potential external providers of that activity. This will enable the company to identify its relative performance for each core activity along a number of selected measures. Even though the case study companies did not use benchmarking in their models, are the author convinced that it is vital parameter to perform and consider. Although benchmarking may be time consuming and expensive; it can provide detailed and useful external information to validate the company's relative performance.

As mentioned earlier in the theoretical overview is the focus on cost large when dealing with sourcing decisions. Risk analysis is one way of minimizing the focus on only cost, and should be used in larger extent according to case study company 2. A conclusion is, therefore, that risk analysis ought to be performed in relation with sourcing decisions. Through awareness about potential risks can make the company prepared if they occurs and they can also, in advance, develop a back-up plan.

Probert *et al.* (2000) point out the importance of cost accounting and that the sourcing decision should be followed up after some time. In the case study one of the companies also used financial evaluation on every decision, within regular intervals. When doing that, companies can see if their calculations were correct and the decision had achieved expected results and payback time. A conclusion is, therefore, that a financial evaluation ought to be made some time after every sourcing decision. When the financial evaluation are showing that the decision was very expensive, do not be afraid of re-evaluating the decision.

Decision authority

As mentioned earlier theories point out that sourcing decisions should be holistic. One-way of making them holistic is, as mentioned above, to work cross-functional.

Another is to raise the decision making authority in the company since local employees sometimes seem to be conservative and favor local activities. The author, therefore, argues that the decision-making authority for sourcing questions ought to be lifted to the management team in the organization to avoid sub optimization. It is also important to regularly inform the union about planned sourcing decisions since sourcing decisions almost always affect the employees.

Documentation

The case study showed that most of the sourcing decisions have not historically been documented in a structured way by any of the companies. About documentation have not the author been reading anything within the theory but the author still argues about the importance of documenting your sourcing decision. If the decision is documented, the company has a good opportunity to go back and revise the decision.

To summarize both theory and the empiric material; there is a need for a more holistic sourcing model that can support companies to make more strategic and well analyzed rightsourcing decisions. The result indicates that a model for sourcing decisions ought to include, or be based on, following aspects, e.g. the companies overall strategy, the companies core competence, benchmarking, both qualitative and quantitative data and risk analysis. The sourcing process also ought to be made with a process approach, avoiding functional sub-optimization. The result also indicated that financial evaluation, a contract and documentation of the decision is important.

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