

Continuous strategic sourcing

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1. Introduction

The present article is based on a specific research project. Based on a situation and competence analysis, the objective of the project is to point out possible action areas for improvements and possible competence areas; areas that should be integrated in the company's future strategic work. In the long term, the objective is to develop specific tools that can support the company's decision processes when in and/or outsourcing. The specific tools form the basis of the development of a conceptual framework that may facilitate the work with and the understanding of strategic in and outsourcing.

During recent years new theories on SCM, outsourcing, supplier cooperation etc. have emerged. Each theory has its own specific basis seeking to give solutions to problems concerning how to use and cooperate with suppliers. All theories, however, seek to solve a well-known problem within economic theory. Thus, the issue on division of labour and specialization is well known (Hägg & Johansson (1982), Weder (1989)). From an economic point of view it is a question of reaching the situation with the lowest production and transaction costs (Williamsson (1989)).

During recent years the core competence concept (Prahalad & Hamel (1990)) has evoked great response in theory and practice. The core competence concept is a tool developed to help defining the company's role in the division of labour in the vertical and horizontal production-marketing network based on a managerial approach. The core competence concept is based on the single company and on what management ought to consider in order to identify its own core competences, as well as the tasks that the company should concentrate on solving itself. However, the core competence concept takes only to a limited extent into account the close interaction that the companies in the industrial markets have with their suppliers and customers (see however Arnold (2000)). In this connection, it has been pointed out that competences are not necessarily attached to the individual company; they are also closely related to the interaction between companies and that the fact that the interaction between companies may be the ground for developing new competences.

From a company and network point of view, the company's competences are thus closely linked to the company's own capacity and interaction with the surroundings. The surroundings represent both possibilities and bindings. Brito (1998) states:

"In general, organizations which develop an activity towards the provision of collective benefits acquire the bulk of their resources from contributions from their members. These contributions can take a variety of focus such as money, materials, services, time or simply psychological commitment. Once control over such resources is achieved, the organization may use them to attain two main collective goals; to produce a direct product or service to its membership; and/or influence other actors' activities. Collective action problems may arise when members of such organisations are free to choose whether to contribute or not to the provision of the collective benefit."(pp.155-156)

In other words, it is not sufficient to look at the individual company's situation; one must also look at the company's interaction with its surroundings and the way, in which it influences and is influenced by these. Thus, in many situations it is appropriate to look at both the intra-organizational factors that are at work and the inter-organizational factors that are in force in a given situation.

It is, however, also characteristic for the company's role in the vertical and horizontal division of labour that the customers' wants and needs change over time, and it is crucial for the company to be up-to-date with development through market monitoring. Determining the company's role and its interaction with its surroundings cannot be made once and for all; it must be made over and over again.

It is important to define one's own role in the network, to observe changes in the network, and in accordance herewith adjust and exert influence in relation to own goals and others' goals (Gemunden 1987).

When preparing its sourcing strategy, the company must take into account both its own position in the network as well as how the company develops. It is also necessary for the company to clarify its own strengths and weaknesses, and draw up an overall mission and strategy for the company in general (Jarillo (1988)).

Traditionally, the basis of the company's sourcing strategy has been a cost and price approach to the suppliers, with the purpose of obtaining the lowest possible price in the short run. In this connection Gadde & Håkansson (1993) have shown that short-term focus on price is much too narrow, and that a much more general, forward pointing and dynamic perception of the supplier base (see also Bensaou (1999)) is needed.

Thus, the interaction with suppliers is a strategic activity that must be developed continuously.

2. The continuous strategic sourcing framework

Every company plays a role in a network and is to perform this role in the best possible way to avoid being replaced by another company performing better in critical areas. Concerning the company's sourcing strategy the central problem is how, on one hand, the company is to match the network's wants and demands and, on the other hand, consider and develop own goals and strategies (Håkansson & Snehota (1995)). Goals and strategies that are to be developed in relation to the network and the market, and in relation to the company's internal conditions and expectations, are necessarily to be striven for if the independent identity is to be maintained.

The customers' wants and demands are crucial for understanding the company's role. The task may be divided into two stages: Matching the customers' present wants and demands, and matching the customers' future wants and demands. (Håkansson (1982), Turnbull & Zolkiewski (1995)). In order to understand and analyze the situation in which the company is, compared to the customers' stage of development, a reliable demand analysis and market monitoring will be necessary. In this connection focus is on the company's handling of different tasks. The company's tasks may be divided into a number of activities that jointly are the company's contribution to creating value for the customer (Anderson & Narus (1999)). In addition, the company has chosen to let other members of the network perform other value creating activities. These activities may be outsourced, or have always been part of the activities performed by other members of the network. Therefore it is necessary to monitor both one's own performance and the suppliers' performance in selected activities - basically in the same way as when the company monitors its demand. In the short term it is important to monitor how efficiently the company and its suppliers perform their activities. In the long term it is important to consider how the future composition of activities must be in the

company as well as at the individual suppliers of the chain. Here, future customer demands and wants play a decisive role. As for customers and suppliers, the individual company will have to consider, to what extent it finds it expedient to maintain narrow or more distanced relations and, if so, to which suppliers and customers. The last-mentioned, however, also results in the fact that the company will have to consider its own ability to perform given tasks, including the ability to assess other people's ability to perform tasks (Krause & Ellram (1997)).

The ability to assess others and demonstrate a qualified demand requires a certain amount of knowledge about a given activity's performance and content (Baumard (1999)). This ability and knowledge may be difficult to sustain if the company no longer is in charge of the activity to be assessed. The task will be even more difficult, when the company is to demonstrate that it is able to make a qualified demand for activities that it has never controlled and performed itself. Therefore, the individual company will face several fundamental problems regarding its present and future sourcing mix.

The basis is the individual company's present activity mix. In order to develop abilities to make continuous strategic sourcing considerations, the company will have to identify present activities, subsequently assess the activities' performance on selected parameters, and decide if the assessed activity is of high or low importance compared with the company's competence areas.

Conceptually, the company must consider the situations contained in the six central questions listed below:

The six central questions:

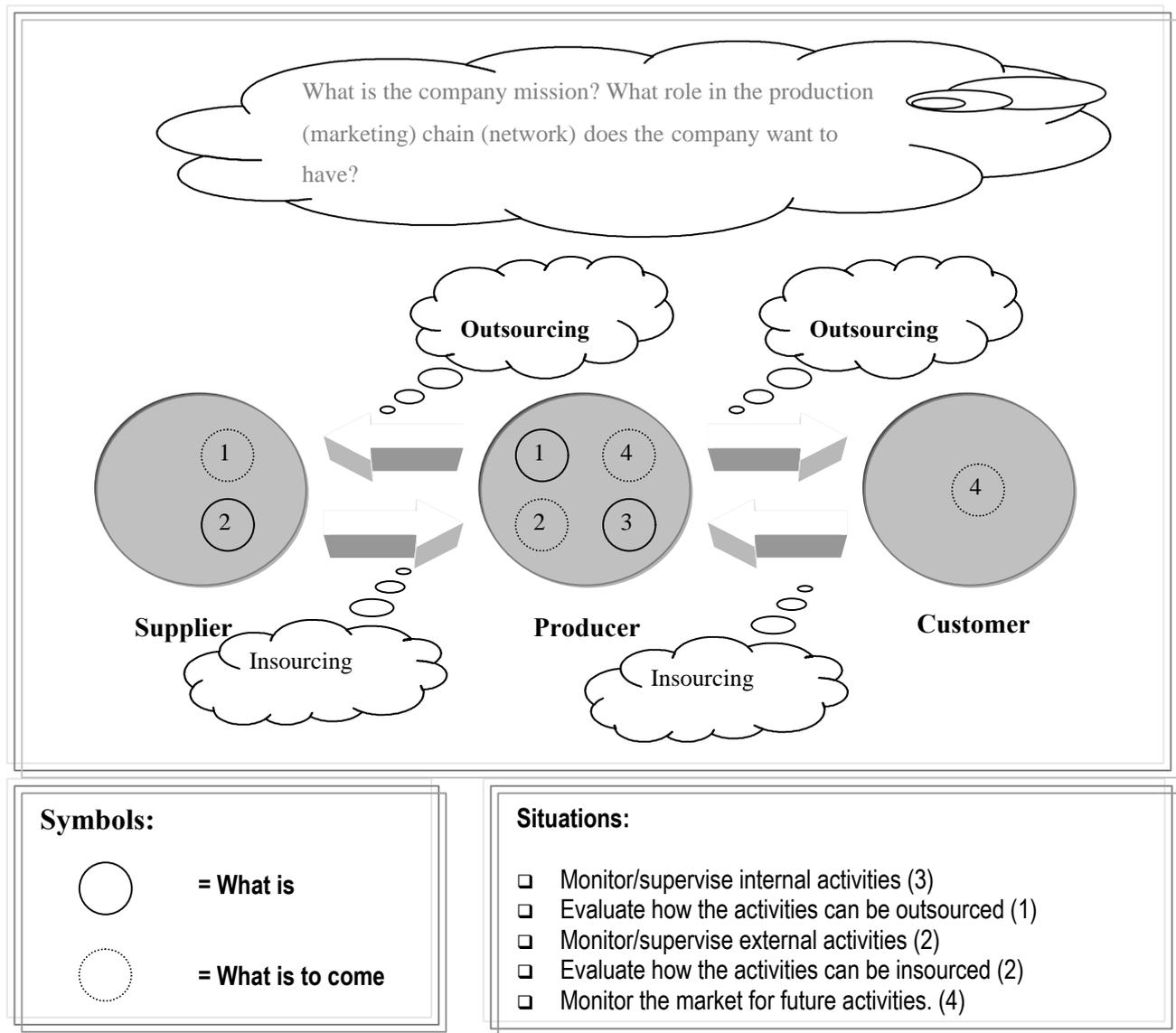
The initial question is, what is the company's present role in the network and what should it be in the future?

Subsequently, the other questions will be answered.

- (a) How does a company monitor its own activities in an expedient way?
- (b) How does a company outsource expediently?
- (c) How does a company monitor outsourced activities in an expedient way?
- (d) How does a company insource expediently?
- (e) How does a company best monitor if there are future activities to be

However, the 6 questions must be seen as a whole and as dynamic entities, since there will be a continuous need for working with the answers to the questions, and as one question cannot be answered independent of the other questions. In the initial question, the precondition of the 5 questions (a-e) is, however, that the company has clarified its own mission and role in the network. In other words, what is the company's mission? And what role in the network does the company want to play? This is the framework when trying to give answers to the 5 sourcing related questions, see figure 1 below.

Figure 1 – The continuous strategic sourcing framework



2.1. Research questions and structure of the paper

Above the theoretical and practical problems have been discussed. Further, a frame of reference that can explain and solve the problems discussed has been presented. Therefore, the following will be discussed.

Firstly, the continuous strategic sourcing framework is described more fully. The purpose of the description is to show elements of the framework and the connections between the questions.

Secondly, the question of how to use the conceptual framework is discussed. Especially the question of how to examine the in and outsourcing question is made valid. Also, the researcher's role and his interaction with the parties involved is discussed, and so is the whole process.

Thirdly, two of the six questions are taken up. The questions are what activities should the focal company itself be in charge of and what activities can the focal company consider to delegate to external actors. The answers to these questions indicate what it takes in terms of resources, capabilities, knowledge of the problems facets and interaction with the companies involved.

Finally, in the conclusion, the relevance, validity, and usability of the continuous strategic sourcing framework is discussed.

In other words, we will concentrate on the following:

1. How can in and outsourcing be seen through the company's present activities?
2. How can a company work targeted, dynamic, and holistic with strategic sourcing?
3. How can a company get good answers to the following question "what activities should the focal company itself be in charge of and what activities can the company consider to delegate to external actors."

3. The questions in the continuous strategic sourcing framework.

What is the company mission? What role in the production (marketing) chain (network) does the company want to have?

The above question is more general than the five questions that are answered in the following. This is because the company's present and future position in the network is basically determining the answers to the other five questions. Thus, the position in the network sort of structures appropriate answers to the other questions.

On the other hand, the answers to the other five questions may affect the overall question of present and future network positions. Thus, the answers to the five questions may bring new knowledge about connections and possibilities.

The core competence concept is a way of identifying strengths and weaknesses (Prahalad & Hamel 1990). According to the concept it is about identifying the areas in which the company possesses unique competences of competitive advantage. Based on Arnold (2000) and Arlbjørn, Kragh-Schmidt & Mikkelsen (2000) it is possible to distinguish between different kinds of competences, although the competence concept is not very operational in its approach as will appear from the following.

However, the company cannot exist in a vacuum. If the company is to live up to its mission and implement its strategy, it must interact actively with its surroundings. The trade or the market, in which the company act, may, however, differ in several points. There is for example a distinction between transaction-oriented markets and relationship oriented markets (see e.g. Håkansson (1982), Jackson (1985), Sheth & Sharma (1997)). Essential distinctions between the two markets are e.g. the extent of the cooperation, the development of the exchanged product, and price focus.

The company's relationship to its suppliers and customers will often be a mix of the two kinds of markets, although there are also examples that all relationships are primarily characterized by a close cooperation or the opposite. Mission and strategy must take this into account, but it is also necessary that the company's in and outsourcing is adapted to the overall market conditions.

In other words, the company's mission and strategy must be adapted to the surroundings, as must the way in which in and outsourcing takes place. The question of who you are and what you want can only be seen in connection with the surroundings of the focal company.

Regarding the company's overall strategy, Turnbull & Valla (1986) have formulated 5 strategies:

Turnbull & Valla's 5 strategies:

1. Technical innovation strategy. The strategy aims at development and supply of products developed on the basis of customer needs – as well as high quality and technical service.
2. Product adaptation strategy. Through product modifications product and specifications are adjusted in order not to trouble the customer. This includes delivery on time, service etc.
3. Availability and security strategy. The strategy aims at minimizing the risk of the customer through efficient delivery, support, after-sales-service etc.
4. Low price strategy. By way of low price, uniform quality and reliability the customers are attracted and kept.
5. Total adaptation and conformity strategy. A very comprehensive (total) adaptation to the customer's product, delivery, handling, and development wants.

How to in and outsource must be considered in relation to the chosen strategy. The abovementioned five strategies represent a frame of understanding for the factors to take into account – the overall considerations to take when to find out what is important in terms of market monitoring, and what is important when a company is to monitor its own activities, its outsourced activities, and also its insourced activities, if any.

How does a company monitor its own activities in an appropriate way?

Managing the company's activities takes place in several ways. From a functional perspective, the company usually have a number of more or less explicitly defined goals, strategies and approaches. In a production department there may e.g. be an overall goal about being at the cutting edge of development within certain areas, whereas other areas may be less essential. As part of the production planning the company have overall guidelines to act upon in the case of problems with the activity performance. Finally, there are usually specific limit values concerning scrapping, deviations from the production plans, and tolerance for certain produced material. At the specific level, there are control systems, e.g. SAP, XAL, Concorde XAL, Navision etc. to ensure that production is performed with a certain attention and according to plan.

The defined goals and chosen control systems express a specific trade-off between areas that are stressed contrary to others that are toned down or neglected. Internally in the individual company there are formal incentive structures influencing the employees' action. For example, the company has goals for both sales and purchases. Here, the importance of cooperation and maintenance vary. This will influence cooperation with customers and suppliers considerably, and it will also influence the employees' internal socialization (Churchill & Ford (1985), Pardo 1999)).

Thus, to state whether the company monitors its own activities in an appropriate way, it needs to map out its own

- goals, policies, and strategies
- control systems and
- structure of incentives

comparing these with the company's mission and overall strategy.

How does a company outsource appropriately?

This area is of great interest to research. Ford et al. (1993) state several perspectives as to how outsourcing may be perceived. Generally, it is a question of defining what the process is supposed to result in. Is it e.g. only a question of purchasing capacity, or is development conditions also of importance? Once the goals are defined, focus is on how to carry out an appropriate outsourcing process. Firstly, the company must choose the right supplier and make an agreement with him. Secondly, it must carry out the outsourcing. Finally, the company must secure an appropriate monitoring of the supplier, meaning that the assessment of the performance should be compared with the defined goals (McIvor & Humpreys (2000), Quinn (1999)).

How does a company monitor outsourced activities in an appropriate way?

Outsourced activities are more or less important, and therefore the importance attached to those varies (Gadde & Snehota (1998)). However, in relation to activities outsourced to a supplier, three questions must be considered:

- How does the supplier perform in relation to the conditions agreed upon?
- How did the relationship to the supplier develop in general?
- Is it still appropriate that the activity is outsourced?

The first question has to do with the supplier's ability to meet the conditions agreed upon. Here, different types of contracts may be important, even though they can hardly stand alone, and sometimes are not of importance in practice (Wilke & Freytag (1996)). The contract does not appear until there are problems, and the cooperation draws to a close. Usually, the parties have agreed on specific performance goals as regards price, delivery, and quality. Sometimes the agreement is pointing forward, e.g. with the ambition to improve the delivered performance (Krause & Ellram (1997)).

At regular intervals, e.g. once a year, it may be a good idea for the parties involved to meet and assess whether the performance has been satisfactory and how the relationship between the parties has developed in general, do the parties still match each other, and will this also be the case in the long run, etc. (see for instance Mikkelsen et al. (2000)).

Finally, monitoring the outsourced activities also includes an assessment whether or not to maintain the outsourcing. The company priorities may have changed as a result of e.g. new customer demands, new technology, or a change in company goals.

How does a company insource appropriately?

In sourcing of an activity is sometimes called reverse outsourcing. In this connection, however, insourcing is synonymous with the fact that the company considers to perform activities that it has either performed earlier or considers to perform for the first time¹.

In any case, the decision to insource must be closely connected with the company's overall mission and priorities – i.e. the role that the company wants to play in the network.

¹ Generally, there are at least two perspectives on insourcing. 1. The sourcing takes places within own "sources" – i.e. the perspective is on the supply. In this connection insourcing is primarily a concept indicating the ownership of the

Insourcing of an activity may result in problems difficult to handle. Activities vary in their complexity. More complex activities may be difficult to insource at a later date, as the company may have experienced a de-learning with the result that it cannot right away resume the performance of a given activity. One thing is the very activity that is insourced, another is the relationship to the supplier. A supplier may experience a removal of an activity negatively, and the future relationship will thus be strained. If the supplier is not expected to have any future importance for the company, the problem is manageable. If, on the other hand, the supplier is in charge of other activities in the company, or is generally regarded as a supplier to whom it is important to maintain a good relationship, an insourcing can be problematic. One way of minimizing the risk of creating a tense relationship to the supplier is to draw him into the decision on a potential insourcing and make him see the expediency of the decision.

Whether the last mentioned is appropriate highly depends on how the relationship has developed until now. However, insourcing can be difficult, and it takes good preparation and management for the process to develop as frictionless as possible (Woodside & Samuel (1981). In this connection it is important to currently evaluate the process, and, finally, assess if the goals defined for both the activity and the process have been reached. It often appears that the process takes longer than expected, and that the results are not quite as was intended (DILF 1999).

How does a company appropriately survey if there are future activities to be solved?

Usually, in and outsourcing is seen in relation to the activities performed by the company at a given time. The basis of in and outsourcing becomes partly reactive. However, in order to in and outsource optimally the company must be proactive. It is not only a question of how to mix one's own and the supplier's performance of tasks; the company must also decide on future activities to be solved – and by whom.

In relation to the company's future development, it is important to make a linking of strategic sourcing if the company is to observe the idea of performing what it does best, and leave the rest to other companies. In this connection it is relevant to involve especially three areas concerning the

source, and it mainly applies to big companies consisting of many factories. 2. Insourcing as an act. Here, focus is on the decision processes that run ahead of the identification of the supply source.

company's future activities in its sourcing considerations: technological forecasting, market monitoring, and the ongoing customer contact.

On both product and production, the company's technological platform is crucial for its survival. The general competitive situation and the development in customer demands etc. are decisive for the company's ability to adapt to the market tendencies. Finally, the ongoing customer contact gives a vital input to how the company can and should adapt to the customers, and how the suppliers and the company itself can best create the highest possible customer value (Anderson & Narus (1999)).

However, most companies tend to see the ongoing market monitoring and customer contact as an internal task for marketing especially used as basis for preparation of the tactical and operational marketing effort (Draft 1995). Here it could be useful to create linking mechanisms that can give input to future and continuous sourcing strategies.

4. The methodology and purpose of the project

There are more ways to examine what in and outsourcing is all about. A first step is registration of what and how much companies outsource. A number of investigations from especially private consultancies show the development in the area (P.A.Consult (2001)).

Through a more general survey it is possible to draw an overall picture of what is happening, and what overall tendencies are emerging with regard to in and outsourcing. Further, it is also possible to give some general explanations of why the companies outsource, and how this may affect them. A profound dialogue with the companies may give more varied explanations as to why the activity mix changes. Through interviews it is possible to ask thorough questions and thus get the companies' own explanations of how and why they in and outsource. Further, it is possible to get an explanation of the effects in question. Thus, through interviews it is possible to get quite close to the reasons and effects of in and outsourcing. However, in an interview there may be a certain tendency to distort the picture of what has really happened. The reasons may e.g. be:

Reasons that may disorder the picture of what has really happened
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- After the conclusion of a process it may be difficult to remember all details clearly
- There may be a tendency to subsequent rationalization and idealisation of the process
- There may be several different perspectives on what really happened, and
- There may be a tendency to present only the official “story” to the environment
- It may be difficult for the involved employees to keep the necessary distance to the process and their own role in the process, and it may be difficult to see through and be conscious of all the factors in the process

Through careful interviews it is possible to get relevant and reliable explanations of what really happened (Zaltman 1997). It may, however, be a difficult and resource demanding process.

A third – and very demanding approach – is to participate in the in and outsourcing process as both researcher and consultant - in other words, to be an action researcher (Gummersson 1991). Active participation provides an opportunity of understanding the process and the considerations of the parties. In the decision process it will thus be possible to ask what happens, who plays which role etc. Also, the researcher can make his own observations. The disadvantage is that the researcher is part of the process, and he may appear as a measuring instrument in the ongoing process (Carson et al. 2001). The result is that the researcher himself becomes part of the research process with the strengths and weaknesses involved (Damgaard et al. 2000). The other participants in the process will e.g. relate to the researcher and his influence on the process, and, consequently, it will be difficult to see the researcher and the process as independent entities. Conversely, the experienced researcher knows his own strengths and weaknesses, and to a certain extent he may compensate for this (Hirschmann 1987).

However, the question regarding choice of procedure must be seen in relation to the aim of the specific research project. The aim of the present project was primarily to obtain a thorough knowledge about in and outsourcing, and to develop a concept and specific tools relevant and applicable for the companies of the project. Subsequently, the tools must be adapted to companies in a similar situation².

In our project there has been a close interaction with 14 companies. The 14 companies are part of the metalworking and electronics industry. The continuous strategic sourcing framework has been developed in close interaction with the companies in question. A middle-sized Danish electronics company has been chosen as case company in order to illustrate how to use the frame of reference. The interaction itself has been completed over a period of 1½ years. During this time, the companies have been divided into two groups of 7 companies each, ending the interaction with the first group before interacting with the second.

In the first round, a researcher and a consultant from a national advisory institution have entered into a close interaction with the individual company in order to obtain a thorough knowledge of the company's situation and the emerging possibilities for in and outsourcing various activities. Roughly, the process with the company can be divided into 4 main steps:

The four main steps in the process:

- Identification of the company's starting point through a situation analysis – the purpose of this analysis is to coordinate the expectations to the project and to obtain a thorough knowledge of the company's strategic situation, including the goals that are to be met.
- Uncovering the company's competences through a competence analysis – the purpose is to point out possible areas of effort for improvements and possible competence areas that can be included in the company's future strategic work.
- Formulation of scopes for action based on the accomplished analyses and the company's strategic position – the purpose is to present specific recommendations for improvements, maybe suggest activities that can be outsourced and recommend how the process can be structured.
- Implementation and assessment of the accomplished instructions on action.

Below, especially the tool for the competence analysis is described more closely. The process is, however, not so advanced that a real summary and assessment of the whole project course can be made. Yet, some central areas may be mentioned.

² At the moment the tool is accessible as a macro in Excel, where visualization in the matrix is automatic.

4.1 A specific tool – developed to the intentions of the project

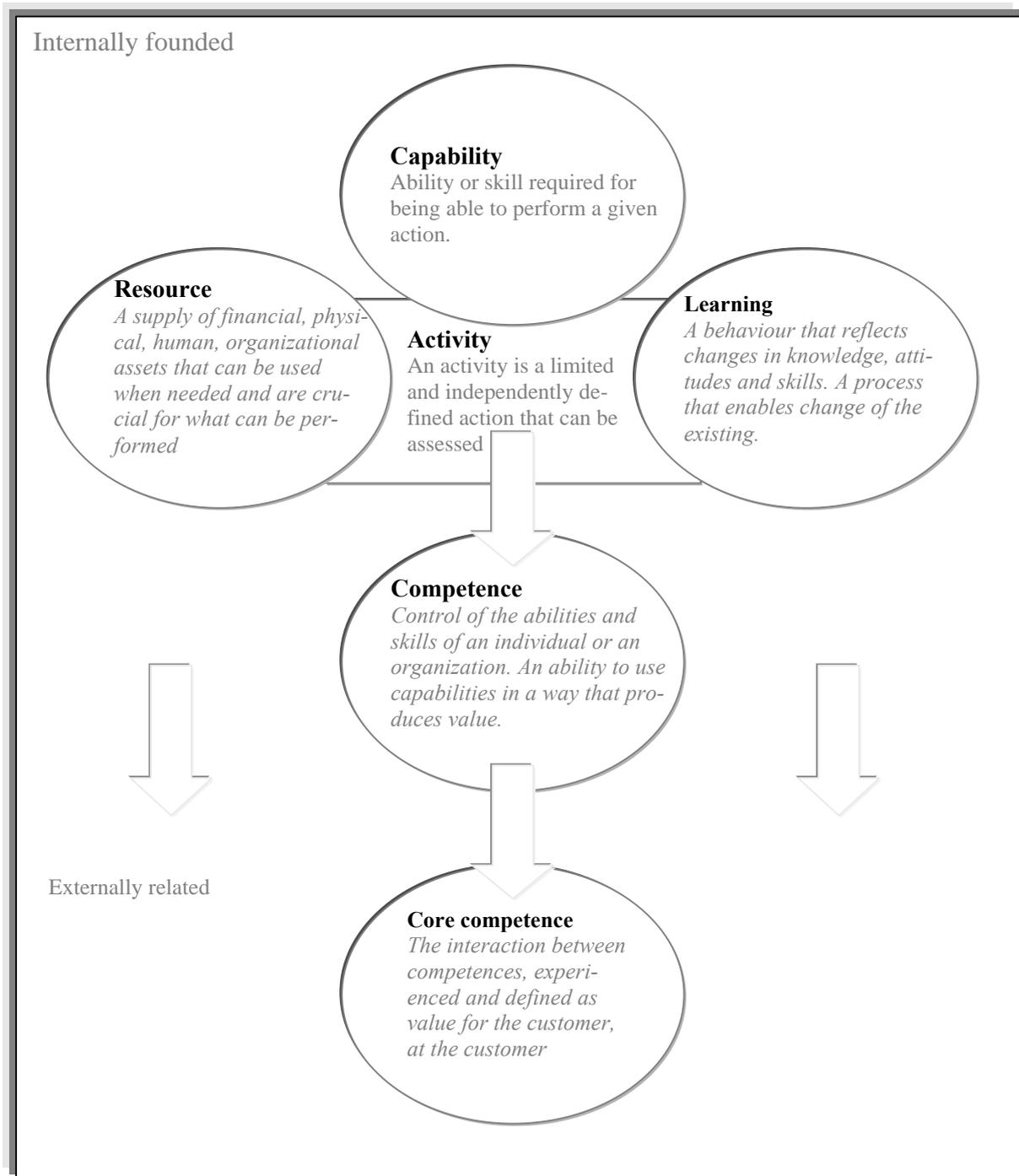
The following paragraphs present a specific approach to how the company can build a structured picture regarding the activities of which it should be in charge itself, and the activities it can consider to outsource to an external actor.

To help answering the question of the future activity mix a specific tool has been developed. The tool is a self-assessing tool and is basically a tool for dialogues. The objective of the tool is to structure and concretise the decision process connected with in and outsourcing considerations – to create a frame and a room for dialogue. The result of the self-assessment is subsequently made visible in a competence matrix. A number of managerial recommendations in relation to the future working process are attached to the competence matrix, comprising in and outsourcing. The contents and presence of the matrix in this article has a dualistic purpose. Firstly, it shows the specific starting point of the further dialogue in the managerial group, i.e. in relation to the tool's specific level of application. Secondly, it stipulates the future work on establishing a conceptual framework for understanding and working with strategic in and outsourcing.

In order to show what activities to keep internally in the company and what activities the company can consider to outsource, the company's present activities are mapped out. In other words, the starting point is the company's current situation. At a given time the company has chosen to perform certain activities. Also, at a given time some activities are not performed by the company itself. Activities carried out by others will, however, affect the company's way of preparing its sequences for the performance of activities, and thus also affect the company's interest in in- or outsourcing activities itself.

Figure 2 visualizes the company's internal reality at an overall level. Subsequently, the abstract picture is decomposed at a specific operational level by means of the abovementioned tool. Critical areas and implications of this project are commented explicitly when required.

Figure 2 – The company’s internal reality



The core of the company consists of several activities. These activities concern various functions in the company and have various purposes that ensure that the company goals are achieved in an

appropriate way. Typically, the activities concern purchase, logistics, production, product development, administration and marketing. Each activity serves a purpose, but will also be connected with the other activities and thus make a whole, both inside the functions and across these.

Each activity is an expression and a result of a number of resources and skills (capabilities), and, seen in a dynamic perspective, a result of and a continued source of learning. In the present connection learning must be seen as a dynamic learning process, with focus on interaction and exchange as necessary reactions to reflection. The inner side of the reflection depends on the reflection's external possibilities and defined goals.

It is characteristic for both management and employees that they are not only representing a resource; typically, one or more purposes/intentions are pursued. The company's strategies and goals are reflected in these intentions, and possibilities and pressure from the environment as well as internal conditions of the company will put them into action.

The company will use certain technologies, pools of knowledge, management and control systems to control the mix of activities that it has and might want to receive. The technologies and systems contribute to structuring the company's activities and to utilizing its competences.

Competences and capabilities are closely related and randomly used concepts covering the same. Below, we try to describe what separates the two concepts. Capabilities are often understood as person or company related qualities, acquired by employees and organization through a kind of learning process (cf. Armit and Shoemaker, 1993, for a related and clarifying perspective). However, when talking of competences, the experience attached to the use of capabilities is often included. Competence may be understood as performance of capabilities. This means that the situation, in which the capabilities are performed, is included.

Thus, competence is the specific pattern of action that is demonstrated in an interaction with the performed activity and in a given organizational connection. A number of resources are used to perform a given activity. These may be physical, technological, financial, human, or organizational etc. (cf. Grant, 1991 and Itami and Roehl, 1987). The ability to use the resources and the

combination of the present resources depends on the company's capabilities, goals, external conditions, and marketing conditions. As appears from figure 2, the core competence is an externally related and internally founded concept. Core competence or core competences are what the customer perceives as being special, unique or especially valuable and contributing to the trading with a given company. What the customer perceives as being particularly value creating may be referred to various conditions in the selling company's internal conditions.

Thus, the core competence may be a special company competence or interaction between more competences that combined offer the customer marketing value. (This perception is closely related with Prahalad and Hamel's perspective on the core competence concept, 1990)).

In the following, the tool is presented by means of a specific example³. The example is from one of the 7 companies that have until now been part of the development and discussion of the present tool⁴. This company is a medium-sized Danish electronics company with 120 employees. The whole company was decomposed in activities, but to owing to consideration of space only one example is used to illustrate the use of the tool in practice.

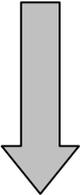
In principle, considerations regarding in and outsourcing may be made about all functions and activities in a company. Traditionally, the companies have wholly or partly outsourced production or production activities to potential sub-suppliers. But concurrently with the increasing complexity in market conditions and intensity in competition, still more areas are subject to considerations about outsourcing, or they are really outsourced to another party of the network.

The present example is from the purchasing department. The example has been chosen on the basis of the department's wish for a reduction of its supplier portfolio and a closer contact to the remaining suppliers.

³ Reference is made to enclosure 1 for the template of the tool, and subsequently to enclosure 2 with explanation of process and content.

⁴ The specific elaboration of the tool was inspired by Jan Stentoft Arlbjörn, Kresten Kragh-Schmidt and Ole Stegmann Mikkelsen's article: Make or Buy – A systematic and structured procedure.

The purchasing function decomposed into the activities that characterize the department's daily actions

	Gained total points on the competence parameters = a+b+c a,b,c = Competence parameters.												
	To what extent is the activity used across product lines/functions/types of employees? (c)	How special is the knowledge/experience, attached to the activity, assessed to be? (b)	How special is the technology/technique/procedure, attached to the activity, assessed to be? (a)	Gained points on the parameters = P1+P2+Pn = total P = achievement parameters.					- Reliability	- Delivery safety/ability	- Reaction time/Flow time	- Professionalism	- Systems
	How important is the function/activity? The more important, the higher score. Points from 1-5.												
 <p>In the fields 1 – n, the names of the functions/activities to be assessed are inserted.</p>	1. Strategic purchasing. Gathering data on suppliers and development.	5	1	4	4	3	4	16	1	4	5	10	
	2. Cooperation with development.	5	3	4	4	3	5	19	3	4	5	12	
	3. Assessment of goods.	4	5	3	3	3	3	18	2	4	5	11	
	4. Negotiation of agreements on cooperation.	5	3	4	2	4	3	16	1	3	5	9	
	5. Negotiation of price.	5	3	4	3	4	4	18	1	4	5	10	
	6. Placing orders.	3	4	4	5	3	4	19	3	2	5	10	
	7. Handling confirmation of order.	3	3	2	3	3	3	14	1	2	5	8	
	8. Prognoses for suppliers.	5	5	4	4	5	4	22	4	3	5	12	
	9. Follow-up on												

suppliers.	5	4	4	4	4	4	18	3	2	5	10
10. Supplier assessment.	5	4	3	4	2	3	16	3	3	5	11

The purchasing department has been decomposed into 10 independent activities that have subsequently been assessed on a scale from 1 to 5 depending on how well the department meets the defined goals for the assessed activity. The better the assessed activity meets a goal, the higher score. The goals of achievement have been identified by way of a dialogue with the employees and the manager of the purchasing department. A total of 5 parameters of achievement have been identified, and so the maximum score can amount 25 point (cf. grey scaled column: Total points obtained on parameters).

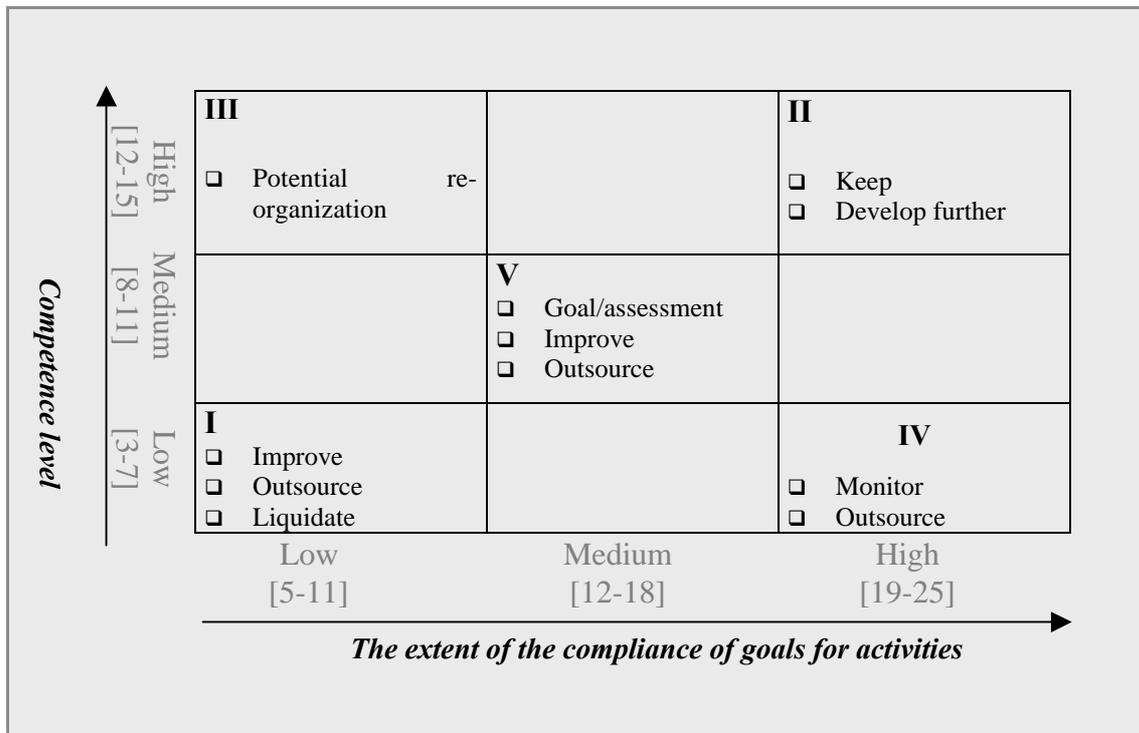
Further, the individual activities have been assessed with regard to attachment of special technology, technique, method, knowledge/experience and use of the individual activity across company functions, products, and types of employees.

When outsourcing, it is interesting to take a closer look at the parameter: integration of the activity, including a cost-benefit analysis. The integration indicates whether it will be easy respectively difficult to outsource the activity in question to an external actor. It is assumed that the more an activity is integrated in the daily operation of the company, the more formal procedures and specific guidelines must be agreed with a possible partner. The extent of the integration will indicate, how many formal procedures and specific guidelines must be taken into account when outsourcing. Maximum score on the competence parameters may amount to 15 (cf. the last grey scaled column in the template).

Subsequently, the result from the self-assessment is inserted in the matrix below⁵. The points allocated to each activity and goal of achievement will, however, be informative. As the company's manager of logistics expressed it: "in spite of the fact that an activity performs well on the whole, an isolated view at an individual goal of achievement may be a source of continued improvements..."

⁵ The total picture of the abovementioned assessment is enclosed.

Figure 2.2 The competence matrix with strategic recommendations.



The individual activities are inserted in the above matrix. The visualization is based on the number of points achieved on meeting both the goals and the competitive parameters. Each cell represents a point status on the extent of goal fulfilment and competence level. The individual activity's position will cause strategic recommendations in relation to the further work on the given activity. The strategic recommendations may be to keep, develop, reorganize, or outsource a given activity or chain of activities. The intention is to formulate a row of questions to each cell and develop a number of tools that structure this process of analysis – state the phases and implications connected with the given problems.

Subsequently, the physical plotting of the performance and competence level should be followed by a cause and effect analysis. In order to put the strategic recommendation into a plan of action, the reasons behind the achieved visualization are uncovered. The primary aim of the cause and effect analysis is to find what is behind the assessment and find explanations to why an activity performs the way it does, and what special technology and knowledge are attached to and deeply rooted in the activity. Alternatively, why are special technologies or knowledge not deeply rooted in and attached to the activity under assessment? Thus, the cause-effect-analysis is versatile, as we do not

only try to find problems and explanations to them, but also look at the activities that positively contribute to and are part of the company's daily operation. Identifying competences is important in connection with strategic in and outsourcing, as it is presumed that the company itself should attend to the areas, in which it controls special technologies, possesses special knowledge, and in which the activity is integrated in the company.

Within practical business economics there is, however, not a long tradition for examining why the company actually works. The cultural and educational background of companies and managers results in a great focus on critical areas of effort, including a focus on areas that do not function as intended. This is why change and extension are required when working with competences. A precondition for assessing and identifying competences is an ability to reflect, evaluate, and recognize special abilities and skills within one's own and other organizations. A critical area that we have had to realize – also in our dialogue with the respective company representatives. The reluctance to give the maximum score of points even to activities that perform as intended, and to which special technologies, methods and knowledge are attached, is pronounced.

In relation to the vision in model 2 and the specific tool, further analyses should subsequently be initiated, especially with a view to naming the technology that the company believe to control within a given area, as well as naming the special knowledge/experience attached to the activity under assessment. Therefore, it will be necessary to clarify the following areas: What special knowledge is attached to and deeply rooted in the activity? Where is the knowledge deeply rooted? Is it deeply attached to persons by systems in the company? Or is it attached to persons without special formalized anchoring? What would the company and thus the customers miss if the knowledge and technology were discontinued?

Compared with the specific tool the learning and resource areas do not become directly visible. Regarding the used resources, further clarification must be made in order to name them. Learning and learning processes are implicit quantities in the tool itself, but the use of this may result in an important perception within selected areas, especially across functions (Kjeldsen, ed. Bateson (1993)). In the succeeding dialogue as to why an activity under assessment performs as it does, explanations and important perceptions may be made, especially for company representatives, who are in everyday life deeply rooted in another part of the organization than the part the activity under

assessment represents. Recognitions may be derived, and it is important to leave room for reflection and perception – space where the signification and content of the individual activities may be discussed and put into perspective. Thus, problems may arise as a result of the fact that an activity is performed with the best intentions, but not as wanted of the next link in the chain (“Do the wrong things right”).

It should also be remembered that the tool is a self-assessment and dialogue tool, and this is why the assessments are subjective. The placing of a given activity can be discussed at any time. The discussion is one of the purposes of the tool, and it serves to clarify why the company’s activities perform as intended, and where improvements may be necessary.

5. Conclusion and further perspectives

Even though the practical and theoretical part of the examination has not been concluded at the time of writing, important observations of practical, theoretical and normative nature.

It was possible to obtain a good understanding of what considerations to take in connection with in and outsourcing. Instead of trying to clarify what has happened and why in a retrospective approach, it turned out to be appropriate to participate actively in the company’s considerations on in and outsourcing.

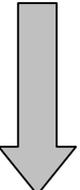
This offers an opportunity of getting close to the decision processes in the companies. Conversely, active participation in the decision processes has the limitation that it may be difficult to dissociate sufficiently from the decision processes in which the company takes part (Gummersson 1991). However, experience shows that the presented conceptual framework can be used in other companies, as the research questions raised and the solution approaches outlined are so general that they may be used in other connections too – at any rate within the electronics and the metalworking industry. Thus, it has proved possible through the conceptual framework to appropriately get close to the companies and the factors that control their consideration on in and outsourcing. In particular, it has been useful to discuss the implicit and explicit goals that control the activities of the individual departments/functions and the entire organization. Linking goals, activities, and competences has also proved sustainable, although getting behind the connections may sometimes be a demanding process.

At present, the step from diagnosis to action has not been accomplished in all companies involved, but so far it has been possible to put the derived recommendations into action, which supports the expediency of the concept.

Theoretically, especially three observations are interesting. First, there is a clear tendency to pay very little attention to whether or not the implicit performance parameters are of importance to in and outsourcing decisions. Often, performance goals are known to only one or a few persons in a department and they are not necessarily well-defined or explicit formulated. Furthermore, there is a tendency to perceive the decision making of the individual functions independently. From an organization theoretical point of view this perception is not new (Cyert & March 1963), but in the outsourcing literature this area is indifferently illustrated. Second, assessing one's own competences implies an ability to reflect, evaluate and recognize special skills and abilities. It is about being able to delimit and relate to the existing in a distancing and involving way. One must be able to name special competences without implying that the area cannot be developed or improved. Third, through the presented conceptual framework it has proved possible to tie the market and supply more unambiguously together and reflect the dynamic interaction between market and supply side. By involving the market it is possible to develop the supplier considerations and one's own role. Thus, the presented conceptual framework has proved to be an appropriate linking mechanism, even if it is not empirically supported yet.

Normatively, the presented tools are also interesting as they turned out to be of practical use because tools can be used to generate suggestions in which the company can be involved.

Enclosure 1: Template of the tool for self-assessment of achievements and competences.

Gained total points on the competence parameters = a+b+c <i>a, b, c = Competence parameters.</i>						
To what extent is the activity used across product lines/functions/types of employees? (c)						
How special is the knowledge/experience, attached to the activity, assessed to be? (b)						
How special is the technology/technique/procedure, attached to the activity, assessed to be? (a)						
Gained points on parameters = P1+P2+Pn = total <i>P = achievements parameters.</i>						
Pn- How good is activity number x at meeting parameter: p n?						
P4 How good is activity number x at meeting parameter, p4?						
P3- How good is activity number x at meeting parameter, p 3?						
P2- How good is activity number x at meeting parameter, p 2?						
P1- How good is activity number x at meeting parameter, p1? The better the activity is at meeting the goal, the higher score. (1-5)						
How important is the function/activity? The more important, the higher score. Points from 1-5.						
						
In the fields 1 – n, the names of the functions/activities to be assessed are inserted						
1.						
2.						
3.						
4.						
5.						
X						

Enclosure 2: Explanation of the process and the progress of the competence analysis

1. First, the functions and/or the activities are clarified in the form downwards from 1-x

It may be appropriate to start the process by decomposing the company into functions. In this way it is possible to get a general view of the functions that can advantageously be decomposed into further activities.

2. Second, the goals of achievement that the company and the individual functions/activities seek to meet in everyday life are identified

The achievement parameters are identified by the formulation of the company's strategy goals.

3. Competence parameters usually run across functions and activities

In other words, the parameters are printed in advance irrespective of function/activity under assessment.

4. In the "empty" columns marked p1-pn, cf. the template above, the goals of achievement, which the company and the individual functions seek to meet, are inserted

Examples of goals of achievement are: ability to deliver, reliability, quality, reaction time, professionalism, efficiency, productivity, resources etc. It is decisive to identify the parameters that the function/activity works at meeting in everyday life. It does not matter if the goals are in writing or are taken for granted.

5. Subsequently the following question is asked:

How important is the function/assessment under evaluation?

The points are 1-5; the more important, the higher score. The score expresses the importance of the activity compared with the other activities. By asking this question the activities are prioritised - a prioritisation that subsequently is informative when choosing activities that should be examined more closely (cf. strategic recommendations).

6. Then the individual activities are assessed in relation to:

How good are we (the department) at meeting the parameter of achievement?

See the questions asked in the columns p1-pn. The points are 1-5, the better the function/activity is at meeting the goals, the higher the score.

7. Finally, the activities are assessed in relation to the competence parameters

The activities from 1-x are assessed in relation to the following:

Does the activity use a special technology, technique, or method? Is a special knowledge attached to the activity? Is the individual activity used across the company's functions, products, and types of employees? The more special/company adjusted the assessment of technology, the higher score. The more knowledge/experience attached to the activity, the higher score, and the more an activity is integrated across the company's daily operations, the higher score.

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