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An outsourcing framework: action research in the heavy industry sector

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Abstract

Recent literature suggests that outsourcing, properly understood and managed as an integral part of strategy, can aid competitiveness. This paper examines the process of outsourcing manufacturing to understand its role in the new strategic agenda. A system model which indicates the critical workflow interfaces between the production system and internal support functions is proposed. The model helps determine the cross-functional interdependencies of the outsourcing process. A four-phase model of strategic outsourcing is then developed. The model serves both as an internal management tool and as an external marketing tool. This leads to synthesis of a practical framework that links six generic phases of outsourcing to strategic planning. The framework includes key activities with built-in performance measures and expected output for each of the phases. The research methodology combines theory study with case study and action research in Aalborg Industries, which operates in the heavy industry. Hence, the research pursues both academic and industrial application.

Keywords: Outsourcing framework; Buyer–supplier relationships; Competencies; Case study; Action research

1. Introduction

Entering the third millennium, most industrial sectors face intensified conditions both in the marketplace and within the corporate boundaries. On the one hand, customers are putting higher demands and constraints on their upstream linkages. Previously, customers focused mainly on low total systems cost, high quality and good delivery performance. Now they also expect short product life cycles and time-to-market, innovativeness and customisation (Kotha, 1995; Sanchez, 1997). On the other hand, companies and their suppliers are experiencing the emergence of a global economy and rapidly changing markets. At the same time, the complexity of products and technologies is increasing and their functionalities are expanding (Dussauge et al., 1992; Christopher, 1998). In consequence of these internal and external conditions, companies must be able to change their organisation, operations, product portfolios, customer segments, etc. rapidly and efficiently as well as on a continual basis. This involves a new approach to the strategic planning process. Hence, the frequently used term "paradigm shift" is highly legitimate at present, not only for the industry, but also for the problem addressed in this research.

2. Literature review

Over the last decade, there has been an increasing emphasis on buyer–supplier relationships in the academic community and in international business (Macbeth and Ferguson, 1994; Hines, 1996; Olsen and Ellram, 1997; Quinn, 1999; Lamming et al., 2000). The importance of investigating the impact of buyer–supplier relationships on corporate efficiency is seen from the fact that a typical industrial company spends 50–85 per cent of its turnover on purchased goods such as raw materials, components and semi-manufactures (Cammish and Keough, 1991; Dyer et al., 1998). This partly explains why business process outsourcing has proved to be a relevant strategic option for companies narrowing their operations to focus on core

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competencies (Bettis et al., 1992; Hamel and Prahalad, 1994; Dobler and Burt, 1996; Hines and Rich, 1998; Drejer and Riis, 2000).

Lonsdale and Cox (1998) document that outsourcing decisions are rarely taken within a thoroughly strategic perspective. Hence, many companies adopt a short-term perspective, being motivated primarily by the search for direct cost reductions. Typically, managers either seem to believe that no strategic planning is required, or instead attempt to "reinvent the wheel", which leads them to learn from mistakes that could have been avoided. Another pitfall relates to human opportunism or bad employee morale. Outsourcing is a sensitive subject that evokes negative employee reactions in an organisation *if* improperly implemented. An inherent risk is also the loss of cross-functional contact. When an outsourcing partner is working away from the company's premises there can be a loss of profitable contact between that function and others which relate to it. Furthermore, many companies report that contract employees are rarely as prepared as in-house colleagues to go beyond their immediate commitments and take the time to work out ideas that may be of benefit to the relationship as a whole. The risk of breach of confidentiality must also be considered. The company must be aware that the balance of power in the relationship can change during the contract, especially if the company has a history of being highly vertically integrated, with little experience in sourcing significant products or services from outside. To be able to specify the baseline agreement, the company must know exactly what knowledge and skills are required for the particular scope of outsourcing (from the drawing board to contract management). Besides, it needs to understand the complex nature of competencies in order to identify areas in which lack of in-house resources and capabilities calls for outside assistance. Supposing the company is not able to keep adequately in touch with the outsourced competence area, it can face potential difficulties over time in re-emerging as a manufacturing competitor. At worst, this can lead to competence expropriation where the supplier imitates the product design followed by branded market entry. A key point is that the longer the relationship spans, the higher switching costs and knowledge dependency are involved. Finally, the company must make certain reservations that even the most collaborative outsourcing partner may fail to achieve the high standards required. In other words, the company must have a strategic preparedness that enables either substitution of the supplier or insourcing when the contract terminates. Lonsdale and Cox (1998) conclude that outsourcing can offer considerable benefits. Important means of maximising these benefits for the company are to think about the outsourcing process in an inherently strategic manner, to understand the efficient boundaries of its core business, to recognise how power can shift and to consider the effects of supplier failure.

Wasner (1999) presents a state-of-the-art view on the outsourcing process by combining a thorough literature review with two independent case studies of the Swedish aircraft industry (Saab AB) and the electronics industry (Ericsson Radio Systems AB and one key supplier Swedform Metall AB). The first case concentrates on outsourcing of aircraft sub-systems and subsequent insourcing of related software activities, whereas the second case deals with outsourcing of radio base station production. Contrary to most authors within the field, Wasner claims that current academic research and part of industrial practice are bringing mainly strategic outsourcing considerations (i.e. what? and why?) into focus. However, he argues that the process of carrying out the transfer of an activity from being internally controlled to becoming externally managed (i.e. how?) is equally difficult because of interdependencies at the operational level. The effects of outsourcing are far reaching in terms of physical, temporal and organisational reach. Physically, because there is an inherent complication of losing control as an activity is turned over to an external supplier. Temporally, because it is difficult to estimate how conditions will change over time. Organisationally, because outsourcing involves converting decisions at the strategic level into actions at the operational level and transferring functions from one organisation to another. Wasner's challenging emphasis on this relatively neglected domain of outsourcing provides one of the main building blocks of this research.

3. Methodology

The research methodology has its starting point in an in-depth theory study of both seminal and up-to-date literature on outsourcing and related subjects. Parallel with the theory study, a longitudinal case study of Aalborg Industries is carried out. This combination of theory testing (deductive) and theory building (inductive) research is referred to as exploratory integration (Maaløe, 1996). The single case study formally commenced in October 1997 and finished by February 2001, thus spanning a period of ~3 yr and 5 months. Moreover, action research (Greenwood and Levin, 1998) plays a cardinal role in the empirical inquiry, motivated by the four-year industrial affiliation[1]. The action research was gradually adopted in connection with general project participation. However, systemic action research formally commenced in January 1999 and, like the case study, finished by February 2001 (~2 yr and 2 months). The empirical elements of the

[1] The industrial research project started in September 1997 and aimed to complete by August 2001.