Industrial Buyer-Supplier Cooperation - DTU Orbit (29/09/2019)

**Industrial Buyer-Supplier Cooperation**

The dissertation considers industrial buyer-supplier cooperation from a systems and management perspective. The purpose is to discuss and elaborate on the buying company’s choice of cooperation strategy (governance mechanism). It is stated that no single governance mechanism will be the best in all situations. The buyer has to differentiate the relationships with the suppliers in different situations. To differentiate between different situations a task concept has been introduced, and definitions of a supply task and a supply system have been established. It is possible to identify a supply system, taking care of a supply task, in all companies. A framework for developing the supply system is built based on the contingency theory and the systems theory. The framework consists of an analysis phase, a definition phase and an implementation phase. The supply task is divided into three tasks in order to create a better understanding of the nature of the supply task. The operating task concerns the use of the existing supply system, while the system development task concerns the appropriate development of the company’s supply system. Finally, the management task concerns creating consistency between the strategic, tactical and operational level. Solving the management task effectively is important in order to solve the operating task and the system development task. The operating task is further divided into a task regarding the physical deliveries, the delivery task, and a task regarding the development of the company’s products and (production) processes, the product and process development task. A number of contingency variables have been identified and described for the delivery task, the product and process development task and the system development task. The contingency variables are used to characterise the supply task. To describe the structures and processes in the supply system, a number of analytical dimensions have been identified and described. The analytical dimensions suggested for the structure of the supply system are the activity structure, the resource structure, the information structure and the actor structure. For each of these analytical dimensions, a number of response variables have been defined and described. Response variables are variables describing elements in the supply system that can be changed in order to improve the output from the supply system. Similarly, a number of analytical dimensions used to analyse and describe the processes in the supply system have been identified and described. The processes in the supply system consist of the exchange process, adaptation processes, sociopolitical processes and internal processes. Response variables have been identified and described for each of these analytical dimensions. A supply management concept has been introduced to describe the overall framework for cooperating with the suppliers. A supply management concept consists of the response variables, the performance variables and the knowledge that a company have decided to use in a specific supply situation. A methodology for developing a company-specific supply management concept has been developed. Using a portfolio model, that has been developed, it is possible to identify eight general supply management tasks, describing different aspects of the delivery and product and process development tasks. Furthermore, tools have been developed to assist the individual company when using the supply management concept and for each of the eight general supply management tasks, recommendations for governance mechanism and integrating mechanisms are provided. Integrating mechanisms describe the means to achieve the necessary coordination between the buyer and the supplier. A typology of integrating mechanism has also been developed. The implementation of the supply management concept will include carrying out a number of projects regarding the development of the relationships with a number of suppliers. The Ph.D. dissertation contains a portfolio model that can be used to decide, which projects to carry out first in order to obtain the most appropriate allocation of scarce resources. Finally, a phase-model regarding the development of buyer-supplier relationships has been suggested and described. In conjunction with the phase model, a number of success determinants from the literature have been identified and described. The success determinants will determine if the company is able to build and sustain appropriate relationships with its suppliers.

**General information**

Publication status: Published
Organisations: Department of Industrial Management and Engineering
Contributors: Olsen, R. F.
Number of pages: 335
Publication date: Mar 1998

**Publication information**

Place of publication: Kgs. Lyngby, Denmark
Publisher: Technical University of Denmark (DTU)
ISBN (Print): 87-89867-56-4
Original language: English

**Bibliographical note**

Supervisor: Aage U Michelsen
Supervisor: Niels Helner
Source: orbit
Source ID: 276456