ONZIEME RENCONTRE INTERNATIONALE DU GERPISA
ELEVENTH GERPISA INTERNATIONAL COLLOQUIUM

Les acteurs de l'entreprise à la recherche de nouveaux compromis ?
Construire le schéma d'analyse du GERPISA

Company Actors on the Look Out for New Compromises
Developing GERPISA's New Analytical Schema

11-13 Juin 2003 (Ministère de la Recherche, Paris, France)

GLOBAL PRODUCT CONCEPT AND THE SUPPLIERS INVOLVEMENT: A CASE STUDY IN THE HEAVY TRUCK INDUSTRY

Ricardo M. NAVEIRO & Andre PORTOLOMEOS

Foreword

This article was specially conceived to introduce Mr. Portolomeos, researcher in logistics and in the supply activity in the truck industry. He has a BSc degree in Mechanical Engineering and a MSc in Production Engineering and has been working as an engineer for european and brazilian automotive companies since 1998. This article will discuss the evolution of logistics in the latest years and focus in a comparison between Europe and Latin America regarding the supply activity of a truck manufacturer.

Introduction

Automotive companies share a common pattern of changes in the latest years. New market demands and new product concepts made R&D costs unable to rely on another system than a full scale global product concept. Nowadays companies are increasingly distributed worldwide and the design activity is being assigned between companies and their suppliers. The need of intense communication arrives when developing a project and companies must coordinate and make compatible the exchange of data and information among all actors involved. The improving performance of information technologies, the improving functionality of Internet applications and the decreasing costs in connections has supported the full scale global product concept adopted by several automakers.

The substitution of a local product concept by a global product concept was followed by the substitution of many local suppliers by a few global ones. The whole range of automakers´ new requirements has also demanded a deep restructuring of the remaining suppliers in order to cope with mandatory global performance goals. In this way, many traditional automakers' suppliers have also installed their plants for supplying their automotive subsidiaries in Latin America.

New categories of relationship between suppliers and automakers were stablished. In accordance with Söderlund E, Widestadh S (2002), suppliers are globally classified into five different categories, based on the degree of involvement and value added in the product development process. These categories are: Catalogue, Labour, Mature, Development and Joint Venture.

A supplier with products normally existent at catalogues is called a Catalogue Supplier and the level of involvement with the supplier is minimal. A Labour supplier has a bigger extent of involvement in the product development process, but the its relationship with the automaker is limited. Following, a so called, Mature supplier is usually developing components after receiving functional specifications from the manufacturer and has full involvement in the product development process. Finally, Development and Joint Venture suppliers are involved both in the product development process and in the development of the process itself. This later relationship involves long term contracts and sometimes partnership between automaker and supplier.

In this sense, for instance, a manufacturer relationship with an engine injection system supplier is characterized by a much higher degree of involvement, the so called "Join-Venture" supplier, with extreme sharing of information, risks and rewards than a relation with a, so called, "Catalogue" supplier, furnishing catalog items.

Case Study

Our case study is focused in the heavy-truck transport sector in which we will compare the differences in supplier relationship between factories of the same manufacturer in Brazil and in Sweden. This sector requires special attention because concentrates many special components, not interchangeable with the ones used in the light trucks. Heavy-truck components are also subjected to special functionality demands coming from special customers (companies and professional drivers) which expect real tangible benefits in their operations. A truck is seem as a professional tool and its performance (reliability, fuel consumption, power, load capacity…) is continuously measured and compared. Furthermore, this heavy- truck market represent the upfront technology level in the high scale automotive industry.

Common basic requirements for supplier qualification are set by practically all the major automotive companies, with minor differences. In the company studied in this case, these demands for suppliers initial qualification were: QS 9000 and ISO 14000 certifications; a quality plan in accordance with the automaker standards; ability to conduct product audits and being capable of report the their number, relating deviations and corrective actions; ability to conduct capability studies and process control in accordance with the automaker standards; EDI capability; ability to measure delivery reliability and report present situation and corrective actions when requested

Our main findings where that the shift of product concepts, from local to global, have impacted substantially the way automotive companies headquarters and its subsidiaries manage the logistics supply chain. A new configuration of global suppliers, some of them deeply involved with the automakers product development, has defined a different way of management new suppliers.

Although most of the global tools have shown their effectiveness in integrating the automotive companies supply management systems, some peculiarities can be taken into consideration in the further improvement of these systems on a global basis. The successful experience with the Latin American supplier management report, used initially to cover particular market needs, that was able to integrate the functionality of a basic database to a powerful Internet interface, using the already available company's homepage.

Bibliography

ARKADER R, LINDNER L F Z (2001) , "Supplier Selection in the Brazilian Autoparts Industry: An Exploratory Study", The 10th International Annual IPSERA Conference 2001

KINCH N (1994) , "The Long Term Development of a Supplier-Buyer Relationship – The Case of Olofström and Volvo", GERPISA - Second International Colloquium "The New Industrial Models of Automobile Firms" Paris, June 16-18

LUNG Y, VOLPATO G (2002) , "Editorial: redesigning the automakers-suppliers relationships in the automotive industry", Int. J. Automotive Technology and Management, Vol. 2, No. 1

PIRES S R I (2002), "New productive systems in the automotive industry: the current situation of three innovative plants in Brazil", Int. J. Automotive Technology and Management, Vol. 2, No. 1

SÖDERLUND E, WIDESTADH S (2002) , "Evaluation of Scania Suppliers – evaluation and improvement of an existing model", Department of Industrial Management and Logistics, Division of Production Management, Lund Institute of Technology, Lund University