

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

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EVALUATING FOUR SUPPLY CHAINS IN THE AUTOMOTIVE INDUSTRY BY A SCM ANALYTICAL SCHEMA

Luiz Felipe SCAVARDA, Sílvio HAMACHER, Sílvio R. I. PIRES

Competition in recent years has increased significantly throughout the industrialized world and the need to adapt to a global scenario has become imperative for many companies. Hence, most companies operating in highly competitive markets have been continually challenged to respond effectively to this new competitive reality. Many companies aiming to foster their competitiveness in this new scenario have focused their efforts on improving Supply Chain Management (SCM), which develops new paradigms and compromises that affect the dynamic of supply chains. This dynamic embraces the reasons and the group of actions that are established as consequence of SCM, the way these actions are supported, the actors involved and the business processes where the compromises are developed. Within this context, the main goals of this paper are:

1. to introduce an analytical schema that evaluates the dynamic of supply chains under the SCM perspective;
2. to analyse the dynamics of three different supply chains of an European automaker using this analytical schema.

The Analytical Schema (illustrated by Figure 1) embodies the following five basic questions that address the main points regarding the implementation of the SCM concept in a supply chain.

WHY - It presents the motivation for the development of new compromises among the supply chains' members. This motivation can be expressed by the main trends that drive a specific industry and by the corporate strategies of the firms that belong to a same supply chain.

WHO - It addresses the relevant actors (firms) of the industry sector that should be involved in the development and implementation of SCM. These actors, here called supply chain members, form the basis for the supply chain structure.

WHAT - It provides the group of actions that develop and implement the new compromises. This group of actions are established by the relevant actors (firms) and form the SCM capabilities. These capabilities use the assets of a supply chain in order to create, produce, and commercialise a product, generating competences for this supply chain that provides a benefit that is considered fundamental by the final client.

HOW - It describes the way the SCM capabilities are supported. This support is done by four SCM enablers: the information technologies adopted among the supply chain members, the coordination and integration of the supply chain's activities and processes, the management of the different kinds and types of relationships among the supply chain members, and the management of the human resources. The success of the development and implementation of the industry's segment new compromises depends on the correct and combined use of these enablers.

WHERE - It indicates the arena for the development of the new compromises. The authors consider this arena as being the supply chain business processes, which is traditionally and here understood as a structured and measured set of activities designed to produce a specific output for a particular customer or market.

Recently, this analytical schema was applied to analyse the supply chains of a vehicle model produced by a European automaker. The application used the plants of this vehicle manufacturer as the focal member of their respective supply chain due to the notorious fact that they are the strongest members in the automotive supply chains. The first supply chain analysed has as its focal member a plant located in Europe that has been producing completely build up (CBU) vehicles since the 1960's. The second supply chain analysed has as its focal member a plant located in an emerging country that has recently moved its goal from the assembly of completely knocked down (CKD) vehicles to the production of CBU vehicles. The focal member of the third supply chain is a new plant in Europe that will start its production in two years. These three supply chains target the production of the same vehicle model, but they present different characteristics and needs that result in different compromises and offered the authors a perfect case study to analyse the impacts of these differences in the dynamic of their supply chain.

The application of the analytical schema was based on seven steps. The first four steps were based under an automotive industry perspective that provided a general view for its supply chains. The last three steps were based on the three supply chains of the European Manufacturer mentioned above and provided a particular view for these specific supply chains. These seven steps and their application will be presented in the (full) paper.

The results of the applications in each supply chain were analysed and the conclusion of the paper was established as a result of the differences obtained between the dynamic of each supply chain.

The main conclusion is that the different characteristics concerning the three supply chains analysed resulted in significantly different dynamics to each supply chain, such as it is detailed in the (full) paper. On the other hand, the analytical schema showed to be useful for conducting the proposed analysis within the automaker's supply chains.