

## CONTRIBUTION TO ALIGN THE SMALL/INDIVIDUAL COMPANIES TO THE GLOBAL PLAYERS

*António Resende – Renault Cacia Logistics Managerl, antonio.resende@renault.com  
Paulo Ávila, Scholl of Engineering - Polytechnic Institute of Porto, Portugal, psa@isep.ipp.pt*

**Abstract:** Nowadays the quality of the products, customer satisfaction and customer's fidelity are of most importance. However to **commercialise** a product it's critical the "time to market", so how can the small companies compete in the global market? And how can they work with the global **players**?

We may think that to implement an organization into a Supply Chain Management (SCM) the companies must already be a global player (strong economic groups) and have a high developed dimension. Yet, smaller enterprises may still have many opportunities if they give significant importance to the "aptitude" to cooperate. Besides that, they must not only **cooperate** in **business information**, but also **in technologies, capacities**, and to **take advantage** of small gains to **increase** more and more **business efficiency**.

The question that we will try to help the answer is: Is it possible to be a small company and participate in one or many global supply chains? We will see in this work that is possible but some procedures have to be implemented.

Firstly this work intends to characterize the problem and then gives some orientations to prepare small individual companies to work with the global "players". It defines a process of change of the traditional logistics management for the supply chain management, and above all alert to the need to **collaborate** in **information, technology and process management**.

**Keywords:** logistics align; Supply chain management; Steps of change.

### 1. INTRODUCTION

Enterprises usually consist of a great percentage of small or individual (isolated enterprises-unique production system), whose processes have no dimension and are not even adapted to create its logistic chain themselves so it is necessary to find a solution for the following:

How do these enterprises, align their activity with the logistic chains of the clients? Or more complicated, How to align to a set of supply chains (several clients, and different logistic chains)? Is it possible for a small dimension enterprise to be visible by these economic groups?

The first aspect that catches the attention of the buyers is the price, although, it is not a sufficient condition itself. In fact it is required a high quality standard as to have some capacity of development and be able to demonstrate financial stability.

When these "first" difficulties are overcome, "operational issues" appear. **How can they communicate with these players.** Will our informatics System (SI) be compatible with SI of the Clients? What volume(s) can be agreed? Which level of promise do Clients assume? Must

we invest in capacity? Or, on the other hand, do the installed resources respond to the contracts?

The global Players tend to make a deal of volumes of production without any obligation of consuming (it is possible they have an agreement concerning the asserted correction of price having in mind the volume of sales). Small companies tend to accept the deals. However when the problem is extended to several clients the restrictions of capacity emerge rapidly. What happens if all the Clients ask at the same time for the maximum of the volumes agreed, retrieving marge to the adequate management of the resources capacity.

### 2. CHARACTERIZATION OF THE PROBLEM

#### 2.1 The Changing World

Globalization of business and the changing consumer behavior, creates a new demand of total differentiation of products, with short life cycle and therefore, the demand for a lean supply chain, increases the frequency of delivery, increasing the demand added value in service delivery.

On the other hand there are the producers working in order to maximize production volumes,

minimizing the diversity and looking for obtaining scale economies. Their Model type of management is highly centered in “Know how technology”, and not focused on the design of the business.

It is important to establish a trade-off to make a bridge between both sides (consumer and producer) to solve the paradigm exposed above. It is therefore important that companies have a different way of looking abroad of the enterprises to understand what goes on in the business from the in-bound → companies → to the out-bound, making it possible to obtain a design of the business in order to integrate all the evolutions and tendencies of the Market, and making possible the creation of value in a competitive rhythm.

So, the management of the supply chain is one of the steps that allows the enterprises to do transaction for a more efficient management business and consequently more competitive.

## 2.2 Management of the Supply-Chain

The supply chain is a set of systems which inter-links the amount of different processes and activities that produce value in the form of products and services, for the final client.

Management of the chain logistics is not the same as a vertical integration. The vertical integration normally implicates the property (of suppliers, producers, distributors, etc.) for a part of an alone entity. This one was had like the desirable solution, but more and more organizations are focusing in his “core business”, everything of it more is looked abroad of the enterprise.

In the past, the relations between suppliers and clients were those of adversaries, instead of being of frank cooperation. It is still the case, today, of enterprises that try to reduce costs or to increase profits to the cost of his matching (assumptions) of the chain of supply. These companies do not see that with this attitude they do not become more competitive, since all the costs will be going to fall back on the price to pay for the final client. *The enterprises real leaders already saw that the real **competition** is not an enterprise against enterprise, **but supply chain against supply chain** [1]*

For that, the management of the supply chain is determinant in the success of the companies. However, it means solving some pre-conditions (which we will analyze) and eliminating some restrictions.

### **Pre-conditions:**

*Have a good organization logistics and some maturity in the process management; and to be able to implement techniques to “make agile” the production processes.*

### **Restriction analysis:**

*Financial capacity; compatibility of information system; capacity to get information; standardization level in each supply chain; level of adaptability of the industrial process; and the level of the lean manufacturing stage.*

## 3. HOW TO ORGANIZE THE COMPANIES TO OVERCOME THESE DIFFICULTIES?

We have already mentioned the pre-conditions and restrictions. Nevertheless, to implement the strategy it is not necessary to resolve all the requirements and restrictions. Its resolution must be included in the master plan of short and medium term.

The industrial process will be able to be (more or less) copied by all the enterprises; the differentiation is obtained through the creative capacity (to develop products well adjusted for the necessity of the clients) and through the global implemented organization. **An organization by processes centered in the necessity of the key clients, in which the logistic/supply chain works as the focal point of the whole activity and decisions, will make the differentiation easily.**

In order to implement the suggested organization for the small/individual companies, a model of change is proposed below, developed in three steps:

- *Guarantee the internal integration of the logistic function – organize the logistic process at the centre of the operations;*
- *Progress from the integrated logistic to supply chain management;*
- *Get profits from the global chain.*

### 3.1 First step - Guarantee the Internal Integration of the Logistic Function – Organize the Logistic Process at the Centre of the Operations

#### The Logistic Function Changes

The Logistic function must depend on the administration in a hierarchy way. It has to be a horizontal department without external influences, with great autonomy and professionalism. The aim of any organization should be to ensure that production satisfies only what the market needs, purchasing supplies production with what it needs

to meet its immediate requirements. The “service to clients” function is vital in the logistic department and inside the enterprise. **The key lies in the recognition that the client order and the associated information flows should be at the heart of the business** [2]. These orders should dominate completely the global logistic flow. In other words, to effectuate the planning of the orders, since the suppliers until the clients.

Everything that the company does should be directly linked to facilitating this process, and the process must be itself reflected in the organizational design and in its planning and control systems.

The control of logistics operations, production, supply and expedition, have to be synchronized with client requirements. The enterprise resources planning (ERP) acquires the orders sent by EDI and it then effectuates the proposals of production orders (beginning of the flow).

### Logistics Coordination with the most Important Departments to the Business (picture 1)

**Information System (SI) Department** implements the necessary tools to a good reception and expedition of information (EDI or web-EDI) in a way to make possible the connection (communication computer) with all the clients and all the suppliers (e.g., order, invoice).

**The Development Department** works in a close relation with the Logistics and Direction of Operations in the development of new products and in the efficient management of the capacities. The level of the capacity of production is vital in this model. The maximum of capacity production must be announced to be able to maximize the level of industrial activity of the Enterprise. We have to be careful if several clients are going to have different behaviors concerning the volumes of the contract. The sum of the total volumes of the contract must not exceed the equivalent of the capacity of the production of 20 teams (8 hours per team) weekly, remaining 8 hours for preventive maintenance.

**The Operations Direction** together with the Logistics, receives every day the customers orders planning and ensures its manufacturing. To be able to guarantee the customers planning orders, the activities of production and maintenance has its priority basis of management in “lean manufacturing and total productive maintenance”. The processes must be designed with the goal to minimize the size of the “set up” and to make possible the techniques of “postponement” in other words “customizing” the products to the clients as near as possible of the expedition operation.

Also, the search for “Zero” defects is a daily concern of the operations. They develop plans to guarantee the quality of the product and the final solutions to solve the quality problems are incorporated in the new projects.

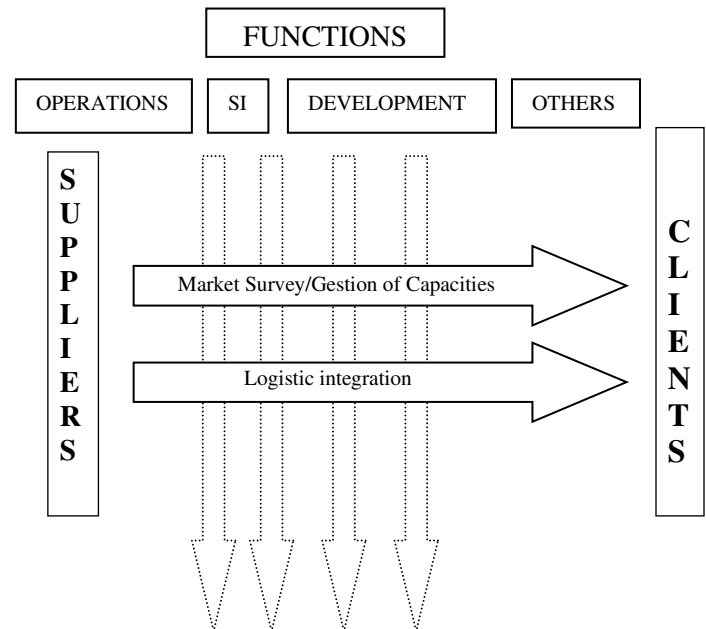


Fig. 1. logistics in the center operations of the enterprise

### Problems to Implement the First Step Strategy

The major barrier to the implementation of the logistics concept is organizational. The danger is on the fact that companies do not recognize the need for organizational change because the conventional organization is based on a functional basis.

Each of the vertical functions is normally headed up by senior managers. In many companies these functional heads have considerable power and guard their territories from unwarranted incursions from others functional departments. Such organizations leave the clients needs apart.

### 3.2 Second step – Progress from the Integrated Logistic to Supply Chain Management

When we want to work ultimately in the global logistics (multi - client, multi-supply chain) the unique way of being able to continue to increase the levels of efficiency (cost / service), to reduce

the time of cycle of the global chain logistics is to change its DIMENSION. **It means, the management of the supply chain extends itself to all the external operations (see picture 2): clients /partners/ suppliers**, managing the supply chain as a whole system (Supply Chain management) looking for profits in the external integration.

### How to / which ways?

With the increasing of visibility on the "real" search along the supply chain logistics (removing the effect **bullwhip** of the variation of the search), using **collaborative processes for getting the good information**, allowing to synchronize the supply chain, adapting the questions of capacity and production to the real demand (customers) of the products.

The goal is to get as soon as possible the best information from all parts of the chain, integrating it in the form of global supply chain planning and sharing it with all the players in the chain.

Most of the times, we can think it isn't possible to change into a SCM organization with a few resources. Actually, "starting" the re-organization between integrated logistic and SCM means the changing the position of the logistics management. So, is to say, **the logistics management leaves the inside of the companies and look to the global flow between customers and suppliers**. The most **important issue is the changing of management attitude**. The company is willing to work with the global chain, and later be able to learn the process collaboration step by step.

Before any investment by the management of the supply chain (SCM) we must be sure that the company has already evolved culturally to the collaborative process.

The level of sophistication in the changing process can be high or low, as the same with the technology associated, but *we can increase the efficiency of orders fulfilment with a simple excel file shared by the customers and suppliers. The difficulty is to obtain their collaborations.*

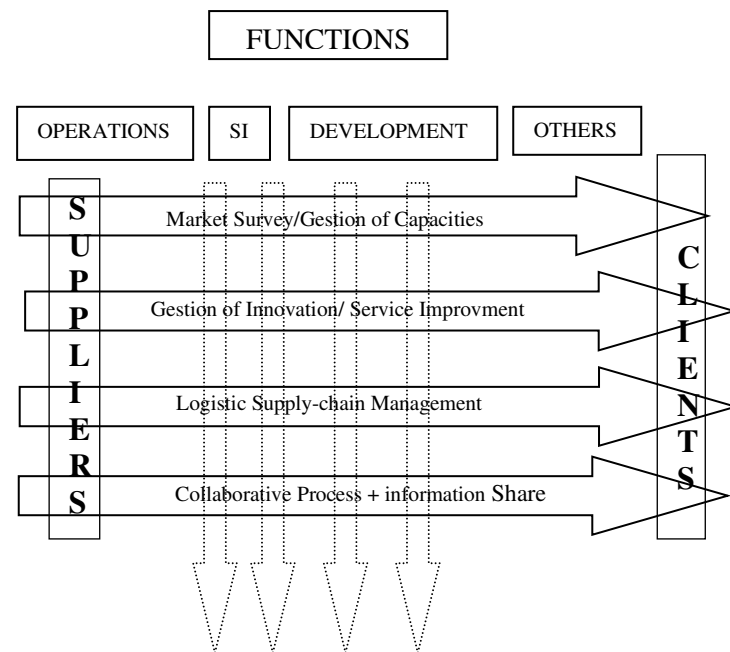


Fig. 2. Supply chain management.

### Problems to implement the second step strategy

To participate in a supply chain or a combination of supply chains is necessary to be **prepared to collaborate**. To manage supply chains is largely trying to relate all the needs and realities of those involved in the chain. It is a collaborative plan of operations and business. That is, a plan shared and validated by the majority of participants in the chain.

Since the beginning of the process of collaboration companies have many problems in sharing information, motivated by cultural resistance, business or system (technical) problem. At this stage it is very important to invest in the relationship, transparency and the tools to share information as quickly as possible throughout the chain.

The attitude of collaboration and sharing in the supply chain will be rewarded by an increase in confidence and efficiency of the company, both through the business results and customers service. Basically it confirms the statement already used above:

*"The enterprises really leaders already saw that the real **competition** is not an enterprise against enterprise, **but supply chain against supply chain**". [1]*

### 3.3 Third step – Get profits from the Global Chain

As it is already stated, companies can get competitive advantages to seize the opportunities gained from the collaboration process. Here we will show, through some possible examples, how we can obtain the profits:

**In Distribution Process** – Choose an **ex-works** condition in the **contracts of distribution conditions "Incoterms"**. The distribution condition of the product is purchased at the door of the company (seller) and the distribution is the responsibility of the customer, which is a great advantage. In fact it is not necessary managing the distribution and the levels of service client (distribution) only depends on the industrial efficiency of the company.

**In Supply** – Either use the outsourcing of global transport (global player) in the supply flow or use the nets of supply of the partners in order to take advantage of its volume to be able to increase the number of deliveries with competitive cost.

**In Information System** – It's possible to make a deal with one SI supplier with the payment indexed to sales (variable costs). However, it is also possible to use the SI network for sharing information as to lower costs of integration, or use open source systems.

**In Production System** – Do partnerships with partners with common interests, as for example, the share of capacities of production, decrease of developer time (picture 3), outsourcing of commodity of production (chassis, structures, etc.). This strategy enables economical **important profits** and **reduces the risk of investment** and speeds the process of production up.

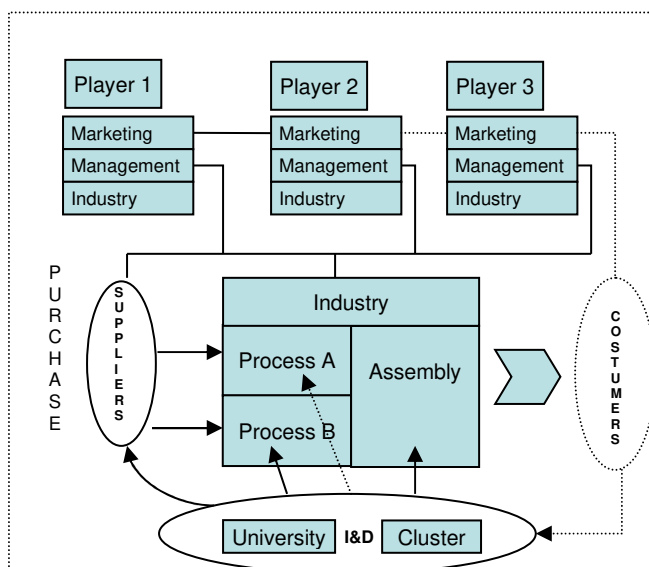


Fig. 3. collaborative capacity model

### 4. CONCLUSION

We saw that the "isolated" enterprise will not survive much time in the current context. The key to overtake the difficulty it is at the "**maturity**" of the enterprise to organize its processes as to become a **link of n-chains of supply**.

It is also required that the company endows the organization to **listen** the Client, to **share** information and resources, to **rationalize** resources of the Supply chain, and to speed up processes and to **synchronize** into the supply chain.

The implementation of the organization should direct the Company for the **excellence level**. We may have business opportunity when it is based on the low cost of the labor or other factors but **only the excellence in the global process can give the necessary advantages to have a "sustainability" position in the market: competitive price, guaranteed quality and excellent quality service.**

### References

- [1] Crespo de Carvalho, J. (2004) Lógica da Logística, Edições sílabo, 1ª Edição.
- [2] Christopher, M. (1998) Logistics and Supply Chain Management, Pitman Publishing, UK.
- [3] Guedes, A. (2004) Logística 2010 que Desafios, COTEC Portugal. retrieved from internet: [www.cotecportugal.pt](http://www.cotecportugal.pt).