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# POSSIBILITIES OF LOGISTICS POLICY IMPROVEMENT

***ABSTRACT***

*The paper presents the strategic logistics management with emphasis on clear, accurate and effective material flow from the suppliers and internally, as well as an outline of the logistics policy for continuous improvement. The implementation of a complete Supplier Logistics Performance System is essential to support internal processes efficiency and establish a continuous improvement system according to the main logistics policy. Every company should consider such a system in order to win in the challenging field of current industry.*

***KEY WORDS***

*logistics policy, logistics continuous improvement system, Electronic Data Interchange (EDI), Logistics Key Performance Indicators (LKPI)*

## 1. INTRODUCTION

Public policies aim to create an operating environment that fosters the competitiveness of trade and industry. Regulation is the necessary part of mixed economies in logistics supply chains but it must be intelligent and further development. The harmonisation of policies and regulations and the investments into infrastructure are preconditions for eliminating the barriers of common market.

Logistics policy is an essential document in a company. It should be focused on the main topics which lead to the best stock management, reliable supplies and accurate material flow at the lowest expenses.

One segment of the problem in logistics companies is the absence of logistics agreement on the actual problem causing that nobody is responsible for negotiating logistics conditions and lack of integration between supplier and manufacturing procurement.

To establish a competitive condition in a plant and among suppliers, it is essential to build up a consistent assessment system to allow benchmarking and strong management. For this purpose it is necessary to create a fixed logistics policy which also provides a solution for regular evaluation. A group of powerful indicators should act as a measurement tool.

## 2. LOGISTICS POLICY IN THE FUNCTION OF LOGISTICS CONTINUOUS IMPROVEMENT SYSTEM

The objective of the Logistics Policy in the function of Logistics Continuous Improvement System is to provide high quality service to customers, to integrate suppliers in logistics processes in order to pull flows and reduce lead time and to optimize logistics processes with reduction of costs and increased reactivity.

This system is based on three tools:

- common improvement system for all facilities;
- common language for all our logistics people: GLOBAL MMOG/LE (global MMOG/LE is a continuous improvement and self-assessment tool with a format aligned with ISO/TS 16949:2002 to provide automotive suppliers with a means to measure and streamline their material planning and logistics processes);
- common structure to share and to define best practices: working group meetings.

Logistics policy is the essential document in a company. It should be focused on the main topics which lead to best stock management, reliable supplies and accurate material flow at the lowest expenses. The manufacturing companies generally use four times

larger space, twice more human resources and ten times more time than they really need [6]. The management should always be able to see opportunities for cost reduction and quality improvement and take all the possible steps to bring them alive.

The Logistics Policy shall be built on:

- respect of customer requirements through systematization of self-assessment of logistics processes,
- transparency through a procurement strategy based on supplier partnership,
- professionalism through skilled logistics people,
- trust through a performing and reliable information system,
- ambition through the optimization of Physical Logistics Flows,
- profitability through the control and optimization of production capacity.

To achieve the goals mentioned above, it is necessary to involve the suppliers using a Supplier Logistics Performance System which consists of implementing of several tools and concepts (Figure 1).

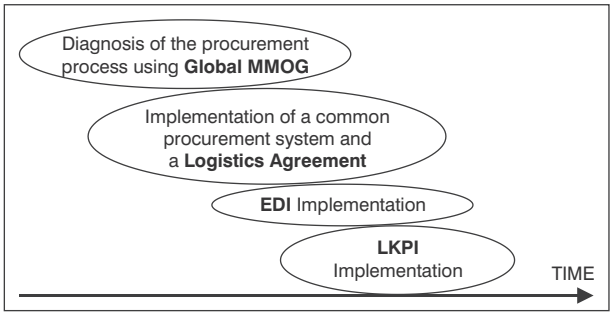


Figure 1 - Implementation steps for Supplier Logistics Performance System

Source: authors

## 2.1 Diagnosis of the procurement system using logistics global MMOG

The starting step of logistics performance system implementation should be focused on self-assessment. This is an opportunity to find any non-conformance or non-standard processes in the company (Figure 2).

Self-assessment will enable:

- identification of the lack of performance in procurement process,
- inadequate stock level,
- inadequate packaging,
- heavy receipt control procedure,
- poor inventory accuracy.

## 2.2 Logistics agreement implementation

The logistics agreement is an essential document between the supplier and the customer defining the basic requirements such as delivery condition, packaging condition, communication escalation opening windows, etc. The logistics agreement implementation can be done in three steps (Table 1).

A few issues can be met during the implementation phase:

*Making the Logistics agreement a dynamic process*

A logistics agreement is efficient if it is not only a "law table", but a real tool to manage the day-to-day issues and to optimize the logistics. The key to success is responsibilization of all actors with the ability to have a multi-level agreement (global level, site level, reference level).

*Developing a pedagogic approach with the suppliers*

A logistics agreement is efficient only if it is explained and if it is understood. Emailing it to suppliers

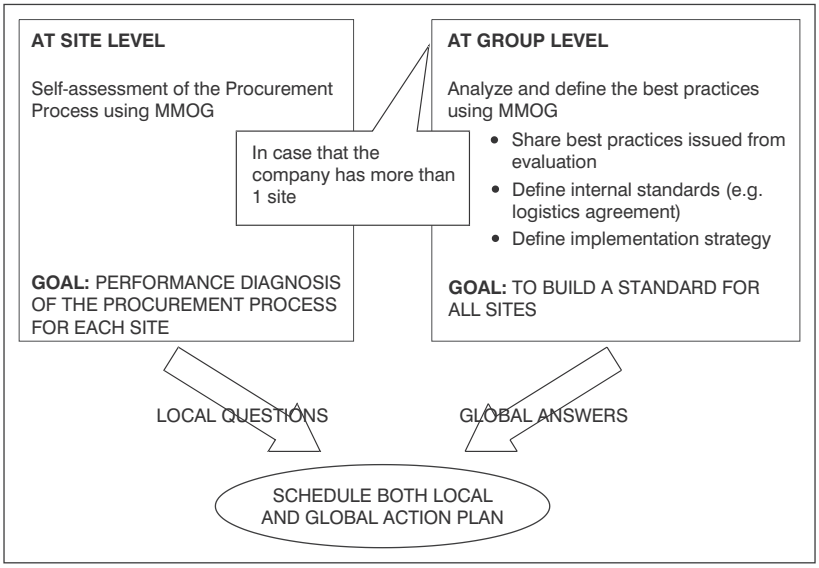


Figure 2 - Company self-assessment by using a standard sketch

Source: authors

**Table 1 - Three steps of logistics agreement implementation**

| | |
|---|---|
| Define and implement a common procurement process | GOALS:<br>– to implement a common and consistent procurement process<br>– to clarify our requirements and our commitments to suppliers |
| Diffuse and explain the Logistics Agreement to suppliers | GOALS:<br>– to obtain the involvement of the suppliers and quick results<br>– to negotiate common terms of agreement (lead time, incoterm, ordering system…) |
| Update and optimize the logistics agreement | GOALS:<br>– to sort the day-to-day issues quickly and locally<br>– to negotiate local terms of agreement (packaging, delivery time slot…) |

and waiting for a signature does not work. Key of success is partnership, conference, audit using MMOG at supplier site.

### 2.3 Electronic Data Interchange (EDI or XML data interchange) implementation

The next step of the logistics performance system implementation is data interchange system implementation. Electronic data interchange is the organization-to-organization, computer-to-computer exchange of business data in a structured, machine-processable format. The purpose of EDI is to eliminate duplicate data entry and to improve the speed and accuracy of the information flow by linking computer applications between companies. The system should enable a quick and accurate exchange of forecast and material order data with each supplier.

There are three basic keys of success during EDI implementation:

1. Use of standard messages and automotive certified solutions (WebEDI).

   To go faster, to mutualize cost for suppliers and to make the message mapping easier.
2. Develop an internal culture of EDI.

   EDI has an important impact on part controller practices; involvement of the purchasing department is required.
3. Implement message per message with a test period.

   Each message must be tested previously with a few suppliers.

### 2.4 Logistics Key Performance Indicators (LKPI) Implementation

Introduction of LKPI is essential for the improvement activity, and it is a standardized tool for measurement of the main characteristics and timely evaluation. The standardized characteristics enable benchmarking activity among all suppliers thus challenging the conditions for their improvement. Six basic LKPIs are proposed as an evaluation basis:

**Table 2 – *LKPI***

| | |
|---|---|
| LKPI 1 | *ASN presence and accuracy*<br>ASN means Advanced Shipment Notification, information about shipment (qty, packaging, time of arrival) sent by supplier to customer via EDI interface |
| LKPI 2 | *Delivery accuracy* |
| LKPI 3 | *VMI*<br>VMI means Vendor Managed Inventory = system of stock replenishment at customer completely managed by supplier (e.g. in Wal-Mart, USA) |
| LKPI 4 | *Material handling & identification* |
| LKPI 5 | *Production disruption*<br>(Schedule Modifications, Incomplete units, Line stops) |
| LKPI 6 | *Supplier communication & cooperation*<br>(Self sufficiency, Reliability, Responsiveness, Supplier problem notification, Availability, Flexibility) |

The implementation of LKPI with suppliers enables the achievement of Logistics objectives.

Example of benefits by LKPI implementation:

- improving the supplier delivery accuracy, increases customer delivery accuracy;
- improving the supplier delivery accuracy, facilitates reduction of stock level;
- improving the quality of ASN, reduces receiving costs;
- improving the quality of labels, increases inventory accuracy (mislabelling…);
- improving conformity to packaging specifications, reduces labour on-costs (repackaging…).

Benefits for the suppliers are in the standardization of requirements in terms of logistics performance within the industry and benefits for the customers are

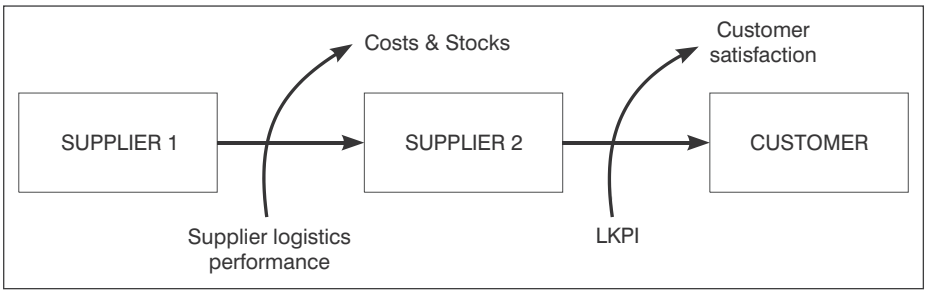


Figure 3 - Involvement of suppliers in evaluation system

Source: authors

in the development or the enhancement of a supplier appraisal system.

The recommendation enables a common understanding between the trading parties for part supply, compliance with Global MMOG/LE recommendation and compliance with other automotive standards (Trading Partners Agreement, messages…).

The scope of the LKPI recommendation includes the logistics processes between supplier & customer, regardless of their level in the supply chain: between OEMs and suppliers, between suppliers (between tier N and tier N+1) and internal supply (between 2 plants of the same company).

Out of the scope are logistics service providers, performance indicators, internal logistic indicators and "customer" logistics performance indicators.

LKPI recommendation defines the standard indicators measuring the effectiveness of the supplier's delivery processes. It also measures the adherence to the trading partner's agreement.

LKPI analysis and diffusion can be provided

- monthly by the part controllers,
  - delivery accuracy.
- every two months with all the part controllers, purchasing, central logistics,
  - analyze and review all indicators.
- on demand to any part controller,
  - delivery accuracy,
  - logistics non-conformity indicators.
- every six months with quality assessment,
  - delivery accuracy,
  - logistics non-conformity indicators,
  - incident indicators.

The implementation of LKPI requires solving of five following issues:

1. logistics agreement: existing, communicated to supplier, updated and consistent against selected indicators;
2. information system: coherent against logistics agreement, integration and automation of indicator calculation, reliability of data, accuracy of indicator;
3. organization and resources for performance follow-up: who measures? who analyzes? who acts? integration to quality system;
4. communication: How do I communicate with the supplier? Aggregation of results? Target definition? Target review?
5. Purchasing involvement: Make indicator reliable? Role of purchasing?

## 3. CONCLUSION

Innovative and intelligent regulation is needed but unnecessary regulation must be avoided. The authorities must ensure competition in transport market. Regulatory changes should have long-term perspective so that actors have sufficient time to adjust. Impact assessment of new regulations must consider also logistics. Efficient logistics is also cost-efficient.

The implementation of a complete Supplier Logistics Performance System is essential to support internal processes efficiency and to establish a continuous improvement system according to the main logistics policy. If it concerns the suppliers, the implementation requires high involvement of all internal actors and must also be considered as a change management issue. The reliability from suppliers can be obtained with two essential values:

CONSISTENCE: of the logistics agreement, of the procurement practices, of the means to animate, and of the indicators measured.

PARTNERSHIP: in order to evaluate we must be ready to be contested and be able to improve also the internal organization.

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***SOURN***

## *MOŽNOSTI ZLEPŠENÍ POSTUPŮ V LOGISTICE*

*Na Strategický logistický management s důrazem na jasné, přesné a efektivní materiální toky jak od dodavatelů, tak i z interních procesů a z pohledu možnosti zlepšení postupů v logistice je zaměřen následunící článek. K implementaci systému komplexního měření výkonnosti dodavatelského systému je nevyhnutelná podpora inteterních procesů a nastavení systému neustálého zlepšování logistických procesů. Všechny společnosti, ktreré chtejí být na vedoucích pozicích v segmentu by se měli rozhodnout pro vybuduvání systém zlepšování postupů v logistice.*

### *KLÍČOVÁ SLOVA*

*Logistické postupy, systém neustálého zlepšování logistiky, zavadění EDI, zavádění LKPI*

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