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THE IMPORTANCE OF QUALITY PRIMARY DATA

'Garbage In, Garbage Out'

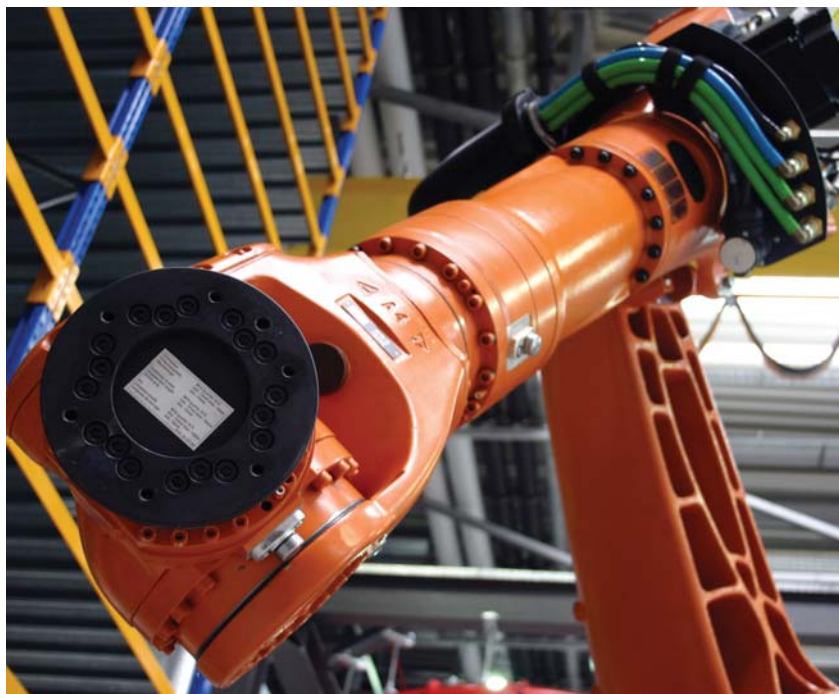
You are probably familiar with the saying in the computer industry: "Garbage in, garbage out." It applies to the recording and storage of information, i.e., the entry of data, and its eventual processing. In short, your information system is worth as much as the data you put into it, and nothing more.

BY MARC BEAUCHAMP

Although in the last few years, information systems have greatly matured, they cannot run perfectly unless they are provided with perfect data. They can to a certain degree help to correct data, but they cannot correct everything. Also, depending on the level of sophistication of data transmission (EDI) and the data's value, the validation by these systems is more or less complete. But they will never be able to completely substitute for rigorous input of quality data. Data is used by systems to allow you to understand your needs – strategic, tactical, and operational. The data thus serves as an analysis tool. It is essential for performing calculations and designing a distribution network, and thus for distribution centres themselves. Studying the data allows you to optimize a whole infrastructure. In fact, it raises the questions at the heart of the action plan of any manager.

However, analysts are often handicapped by inadequate data entered in systems. This in itself is a real problem to which we must add a bad habit of many users: important files are deleted to free up space on the hard disk without considering the value of this information.

To ensure the effectiveness of a system, i.e., that it can manage operations without errors, it is imperative to correctly enter data and in particular to validate it to avoid errors in codes or spelling. In particular, information must be carefully preserved in the system – like the standardized identification (systematically entered the same way) of products, quantitative information (movements/customers/suppliers) and transactional data. "Erroneous information will affect the matching of data and produce poor results. These errors cause numerous problems in the man-



A good example of why quality data must be entered in a system. With this robot, errors are not permissible. Otherwise, it's the merchandise that could suffer. But even worse, the workers near the equipment would be in danger. An error that could cost the company dearly!

agement of the company's information. And though data entry problems may seem trivial for some people, they are the real reason some managers question the effectiveness of existing systems. The quality of inputs and their standardization is essential for producing a coherent analysis, and with less effort," explains Stephan Lauzon, consultant of Group 4L2, a firm specialized in implementing systems. "What gives strength to a system is, first and foremost, the quality of its inputs. Because systems perform well only if they are driven by accurate data," he insists.

MATCHING DATA

In fact, through matching data, even without knowing a business sector, as an example, you can find out in an instant how many customers are located on the same street, in order to plan pickups and deliveries, determine routes, and thus schedule orders, and obviously the positioning of merchandise in the truck. Better yet, you can determine if you can pick up an order of products from a supplier located on the same street to avoid returning empty. "All experts agree that decisions should be based on facts and thus on



data, and not on opinions," says Lauzon. "It has been proven that this approach can save companies money," he adds.

The time to take this principle into account is when implementing a system in a company. Data must then be modelled based on past history that has been preserved. In fact, he says, "In many cases, the information has been collected and is available. But, the company does not make use of it. At least, they don't think of it because it is believed that it was collected for other purposes, for inventory for example. Take the example of analyzing purchase orders. This type of analysis," he says, "can make you realize that you should buy half a trailer full of a product each week, instead of a full trailer of the same product every two weeks, which

could result in significant savings."

When implementing a system and giving it added value, the principle of data collection, both the procedure and the quality, are of fundamental importance. "That's why," indicates Lauzon, "long before installing optimization tools, it is necessary to consider the current structure of data capture in a corporate information system. These are working tools that serve to evaluate the business strategy (vision, opening of markets, etc.). The cross-referencing and merging of information contribute at the same time to the operational effectiveness of any company. A good data collection strategy will achieve an indisputable return on investment, when used with appropriate software."

Data analysis

By analyzing data, you can first determine operational statistics. Analyzing products, for example, you can classify products in broad families, and by supplier and type of delivery, while noting periodic sales (12 months per year). You can establish the order profile of a whole network in this way.

Looking at business costs, data analysis can verify the existing cost structure, for example in acquiring merchandise or in delivering it. This makes obvious the pricing policy practiced by suppliers in direct delivery (anticipated savings).

Properly compiled data also contributes to the location and quantification of business by point of sale. And also to the accurate establishment of the frequency of delivery by category and by location, to see current and anticipated delivery windows, and obviously to control inventory levels.

The collection and analysis of data also help to measure growth, and predict it. It also supports the identification of other business opportunities. Such analysis provides an objective and critical picture of the situation of the business, revealing its strengths and weaknesses, the main goal being to wake up and take action.

Information modelling also contributes to defining required investments (property, systems, equipment), distribution centre operating costs among others, transportation costs, inventory level, the impact on customer service and on existing and future sales outlets, and costs of acquisition and preservation of inventories, in addition to clearly establishing administrative costs inherent to operations.

Avoiding errors

According to Stephan Lauzon, "When operations and processes start to deteriorate, the level of customer service is directly affected. Orders contain errors, items are out of stock, and delivery dates are increasingly difficult to meet. Every error causes dissatisfaction on the part of customers and increases administrative costs (returns, inventories, explanations to customers)." The collection of data and its analysis sheds light on an organization's weaknesses, and enables the concerned manager to intervene on time. As we can see, everything depends on sufficient, error-free data entering the system. ■