

eCommerce and Logistics

1. Today's market landscape

Today's market landscape has changed dramatically. Nothing is the same as before. Changing consumer behavior, small margins and emerging competition create ever-increasing demands and a complex grid of relationships. eCommerce, the latest expression of technological evolution, gives another dimension to retailing, but at the same time increases demand in the supply chain. Electronic Ordering causes more complexity to businesses who, in an effort to reduce logistics costs, place increased requirements on the warehousing and distribution process. The requirements outlined below need to be addressed effectively in order for a company to maintain its competitiveness and market position.

2. Modern requirements in Logistics process

2.1 Frequent orders and smaller quantities.

The problem of storing and freezing funds is shifting from customers to the efficiency of the supply chain. Customers are not willing to store large quantities, therefore require their suppliers to deliver smaller quantities, resulting into a dramatic increase in the number of orders. The reduced size of the quantities leads to picking boxes, or even sub-packages or individual items. In order to deal with this change without the additional increase in operating cost, more efficient collection methods are required.

The impact on warehouse operations is:

- Increased activity on pick-up and dispatch processes
- Increased workload for picking operations
- Increased equipment and infrastructure requirements
- Increased control and monitoring functions
- Increased itinerary operation
- Increased quality control activities
- Increased workload for inventory planning and purchasing

2.2 Increased number of kept codes.

The modern business faces the problem of the increasing number of kept codes. The shortening of product life, the increasing tendency for offers and diversification, and the production of private labeling products have multiplied the number of adhered products in the warehouse. Taking into account the smaller quantities that customers order (which result in 'broken boxes'), we can appreciate the size of the problem to be dealt with within the warehouse.

The impact on warehouse operations is:

- Increased storage costs
- Demand for larger storage
- Reduced productivity of employees
- Increased monitoring management costs

2.3 Need to reduce replenishment time.

Since customers order smaller quantities of varied codes to reduce storage costs, they also require shorter delivery times from the supply chain. This means that there is a requirement to shorten the time required to freeze, collect, pack,



load and ship orders. Recent researches show that the need to reduce the supply time has gone up by up to 70%.

The impact on warehouse operations is:

- Increased workload
- Need for process automation
- Increased administrative control of employees
- Need for better information amongst the warehouse, sales, supplies and inventory planning teams

2.4 Demand for error elimination.

Customers today require a zero error rate in the accuracy of deliveries.

Mistakes often lead customers to switch suppliers, ask for additional discounts and reimbursements, and even demand penalties. When having to deal with frequent deliveries, varied kept codes, low order volume, and shortened supply cycles, errors can be the rule, not the exception. The impact of errors is directly transferred to the bottom line of the company.

The impact on warehouse operations is:

- Increase of quality control functions
- Increased customer dissatisfaction
- Reduced gross profitability

2.5 Demand for added value services.

Customers today are looking for added value services from their suppliers. This is how today the warehouse is converted from a support unit to a production facility. Requirements for added value services often relate to the unpacking, repackaging, labeling, adding coupons, placing user manuals, special packaging, and more. All these needs for additional services, imposed by the modern economy of mass diversification, cannot be effectively addressed with the "old successful recipes".

The impact on warehouse operations is an increased need for:

- Quality control
- Packaging
- Repackaging
- Labeling
- Creating sets and kits
- Increasing labor costs
- Increasing number of adhered codes and packaging materials

2.6 Requirement for immediate updates.

Customers and suppliers require immediate updating that is electronically transmitted upon arrival or delivery of the goods. Sending real-time emails requires information systems that collect, control and validate information in real time. Real-time information collection helps improve the level of customer service and can lead to a drastic reduction in the company's stock.

The repercussions on warehouse operations are:

- Need to increase customer information level
- Need for immediate response to urgent orders
- Requirement for real-time intra-departmental information



3. Conclusions

With its rapid expansion, Internet is gradually consolidating as a key product promotion channel, while eCommerce and eBusiness are now a reality. Regardless of whether we are looking at “Business to Business” or “Consumer to Business”, the market conditions are about the same: Increasingly smaller order sizes, an increasing volume of orders and at the same time increasing demands on speed and the precision of delivery, which means that the cost of logistics increases significantly. The existence of a modern logistics information system in every business, which will effectively meet modern requirements, is a no-brainer. The concepts of eCommerce and Logistics Information Systems are interconnected. To be precise, the existence and proper operation of the former presupposes the existence and proper functioning of the latter.