



JIT purchasing and comparative discussion of JIT system over Traditional system

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Abstract : JIT Purchasing is a systematic approach for developing and operating the Purchasing Function. JIT Purchasing along with the Total Quality Management in many industries has been successful in reducing inventory and increasing the overall effectiveness of Purchasing

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Function and hence the productivity of manufacturing. JIT in Purchasing broadly means frequent ordering and frequent deliveries of materials in smaller lots from preferably local, and quality certified suppliers to the point of their consumption at the time of usage in right quantity and quality. Purchase section has been selected to lead the JIT implementation because it is the first line of a plant as far as quality and timely supply of items are concerned. JIT Purchasing is not about reducing inventories. In fact, inventory reduction is perhaps the most visible result that JIT brings about. JIT in reality is a philosophy of Supply Chain excellence.

Introduction : JIT Purchasing means providing materials to the production facility just as they are required for use. It goes against most of the traditional ideas held by Manufacturing, Purchasing and Materials Management. JIT Purchasing is integral and is typically incorporated when describing JIT Management Practices. The fundamental aim of JIT Purchasing is to ensure that production is as close as possible to a continuous process from receipt of raw materials/ components through to the shipment of finished goods. Shortages of raw material, shorter lead time, high quality, increasing the variety of products with smaller runs, inflation, productivity and introduction of a JIT purchasing system etc. prompted the realization of the importance of purchasing. JIT Purchasing is an uninterrupted flow of 100% acceptable materials delivered on due dates and time at optimal cost and 100% of time. It is a process of buying, which involves determining the need, selecting supplier, proper price, terms and conditions, order and proper delivery.

The hallmark of JIT Purchasing is the steady purchase of high quality parts in small lot sizes on time from a single or a few sources of supply. Implementing JIT Purchasing requires a reduction in the number of suppliers. Without such a reduction, JIT Purchasing would become unmanageable. Having many suppliers may force the buyer to concentrate



on coordinating them rather than on other important objectives, such as improving quality and cost reduction. The JIT approach is to build a collaborative contract between buyer and suppliers to permit acceptable returns on investment to both sides and to force both sides to strive for continuous improvement. In order to do this, the splitting of a large order quantity into small deliveries or allocating it among a few suppliers coincides with the JIT Purchasing philosophy: “Place one large order for all requirements and receive deliveries in the smallest conceivable lot size”.

1. The Potential Benefits of JIT in the area of Purchasing includes the following:

- Low scrap costs
- Low inventory carrying costs
- Low overhead costs
- High quality
- Improved productivity etc.

2. Comparison of JIT System and Traditional System

Comparison of JIT System and Traditional Push System is shown below in Table 1:

Table1: JIT (Pull) System versus Traditional (Push) System

Sr. No.	Purchasing Activity	JIT System (Pull System)	Traditional System (Push System)
1	Establishing Lot Size	Purchase in small lots with frequent deliveries.	Purchases are made in large batches with less frequent deliveries.
2	Selecting Suppliers	Single source of supply is selected for a production close proximity with long term contract.	Multiple sources of supply are selected for a given part, short term contract.
3	Evaluating Suppliers	Product quality, delivery performance and price emphasized; no percent of rejections are possible.	Product quality, delivery performance and price emphasized; 2% of rejects acceptable.
4	Negotiating with the Supplier	Product quality and fair price are primary objectives.	Lowest price possible is primary objective.



5	Inspecting Incoming Parts	Counting and inspecting incoming parts is reduced and eventually eliminated.	Buyer responsible for receiving, counting and inspecting all incoming parts.
6	Determining mode of Transportation	Delivery schedule left to the buyer; concerned with both inbound and outbound freight.	Delivery schedule left to the supplier; concerned with outbound freight and lower costs.
7	Setting Product Specifications	Buyer relies on performance specifications, supplier encouraged being innovative.	Buyer relies on design specifications, supplier has little input.

ADVANTAGES OF JUST-IN-TIME SYSTEM

The advantages of using JIT are numerous. Several advantages mentioned already are those of waste reduction and increased ability to remain competitive. Following are the other advantages of Adopting Just-In-Time Manufacturing Systems:

- Just-in-time manufacturing keeps stock holding costs to a bare minimum. The release of storage space results in better utilization of space and thereby bears a favorable impact on the rent paid and on any insurance premiums that would otherwise need to be made.
- Just-in-time manufacturing eliminates waste, as out-of-date or expired products; do not enter into this equation at all.
- As under this technique, only essential stocks are obtained, less working capital is required to finance procurement. Here, a minimum re-order level is set, and only once that mark is reached, fresh stocks are ordered making this a boon to inventory management too.
- Due to the aforementioned low level of stocks held, the organizations return on investment (referred to as ROI, in management parlance) would generally be high.
- As just-in-time production works on a demand-pull basis, all goods made would be sold, and thus it incorporates changes in demand with surprising ease. This makes it especially appealing today, where the market demand is volatile and somewhat unpredictable.
- Just-in-time manufacturing encourages the 'right first time' concept, so that inspection costs and cost of rework is minimized.



- High quality products and greater efficiency can be derived from following a just-in-time production system.
- Close relationships are fostered along the production chain under a just-in-time manufacturing system.
- Constant communication with the customer results in high customer satisfaction.
- Overproduction is eliminated when just-in-time manufacturing is adopted.

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