

5 November 2003

Just-In-Time (JIT) in the Elusive Service Industry

Mounting global competition, emerging new technologies and advanced communication systems have revolutionized the business world and forced it to become more customer-driven. Companies in the manufacturing and service sectors have been focusing intently on customer satisfaction and quality of products and services. Today's customer-driven markets have challenged manufacturing and service companies to find ways to cut costs, improve quality and stay ahead of competition.

Eliminating Wastes

One of the best ways to accomplish this is JIT, which has been successfully adopted in the manufacturing industry in various functions like purchasing, marketing, engineering and production. JIT has been defined as an operating concept designed to eliminate waste. Waste is defined as anything in excess of the minimum resources that are absolutely essential to the value to the product or service. These resources can be in the form of equipment, materials, parts, space and employee time.

The strong foothold of JIT in the manufacturing industry is attributed to its noticeable and measurable applications, which make it easy to employ in that sector. The major waste areas in the manufacturing sector are those in production processes, the materials department, design, and transportation, along with those involving suppliers, defective parts and parts waiting in batch production modes. Moreover, JIT emphasizes simplification of the manufacturing processes to quickly detect problems and arrive at immediate solutions. A JIT system enables companies to operate efficiently with minimum resources and realize the following benefits:

- Enhanced product quality
- Increased flexibility towards changing customer needs
- Lower overall manufacturing costs
- Increased employee involvement
- Lower raw materials, work-in-process and finished goods inventory

Services - The Elusive Area

The service industry is one of the most elusive areas in terms of application of JIT principles. However, it has been observed that when JIT is applied in the context of services, companies often tend to focus on the time it takes to deliver a service. The economy today is experiencing a sudden growth of the service sector. Increased growth and competition in the service industry are now making it necessary for companies to apply JIT principles. Service environments that have repetitive operations, high volumes and tangible items like mails, checks or bills will benefit the most from JIT principles.

Services are similar to manufacturing in that both employ processes that add value to the

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basic inputs that are used to create the final product. JIT principles focus on processes and elimination of wastes, not the product. The underlying philosophy is to continuously find ways to enhance efficiencies of various processes. Every step in a process has to be analyzed to see if it adds value to the final product or service. Thus, the key requirement of JIT is the constant and continual testing of processes.

The Service Sector at a Glance

Recently, the service industry experienced tremendous growth. A massive sector that was previously hidden and includes support functions like maintenance, administration, human resources, warranty repair, post-sale help and pre-sale consultation is fast emerging. While the manufacturing sector has had a steady and flat employment rate in recent years, the service sector employment rate has shot up dramatically. The greatest productivity gains can be realized by defining critical or value-added service activities and eliminating those that are not required.

To apply Just-In-Time (JIT) principles in the service sector, it is crucial to first understand the service environment and the challenges involved. Service is talked about in humanistic terms, while manufacturing is talked about in technological terms. What are the actual differences between the two sectors?

The major challenge faced by the service industry is devising delivery systems that meet acceptable service levels based heavily on the degrees of contact, degrees of labor intensity and extent of customization provided to the customers. The inputs come from the customers.

The nature of operations in the service industry is unique, and therefore there are different viewpoints on the crucial environmental factors. According to marketing, the major factors are the expectations and perceptions that a customer has of a particular service. On the other hand, the operational viewpoint considers the amount of time spent by a customer in the service system as the major environmental factor. A review of the specific characteristics of the service industry is as follows:

- **Inseparability of production and consumption.** Services are mainly characterized by simultaneous production and consumption. Since the presence of the customer is required during the production of many services, inseparability arises and forces the buyer of the service to come into close contact with the production process. Simultaneous production and consumption eliminates opportunities for quality control, a problem that does not exist in the manufacturing industry. This emphasizes the need and importance of greater process control in the service industry to ensure consistency of quality of outputs.
- **Intangibility.** Services are intangible concepts, ideas or performances. The customer has to therefore rely only on the reputation of a company before availing its services. These less measurable considerations tend to greatly influence customers' expectations and perceptions of quality.



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- **Perishability.** This refers to the concept that services cannot be inventoried. The inability to store services is a critical aspect of many service operations. Vacant hotel rooms, empty seats in airlines, etc. are instances of opportunity losses. Perishability leads to problems of synchronizing supply and demand, potentially causing customers to wait or not to be served at all.
- **Heterogeneity.** Since different companies can provide the same service, the quality of the service varies from one provider to another every time. Measuring the variations in performance types is a challenging task.

Until recently, companies in the service industry were not challenged much by stiff competition and hence did not focus on eliminating inefficiencies. However, with the sudden increase in the growth of the service sector, companies have begun to look for better ways to achieve operational excellence.

Industry analysts say that the service industry should not resort to cutting costs at the expense of securing enduring competitive strength. Large-scale cost cutting may bring short-term benefits, but in the long run, a company will not be able to motivate, respond to customers and provide quality services. This emphasizes the need for better productivity and quality in the service sector.