

Production refers to making or manufacturing things. Production is one of the key functions in a manufacturing company. Other key functions include human resources, marketing and finance.

There are three main types of production processes:

- Job production
- Batch production and
- Flow production

Job production consists of producing single items. Batch production consists of producing groups of items at the same time. Flow production (also called mass production) consists of producing huge quantities of essentially identical items often using a “production line” consisting of a series of machines and workers each responsible for completing a specific task in the manufacturing process.

Each of these methods has advantages and disadvantages, the manufacturing method used to produce a specific product will depend on many factors including:

- The nature of the product
- Market size
- Stage of the business/product cycle
- Available technology
- Costs
- Etc

The objectives of the production department are usually to produce a specific product, on schedule at minimum cost. But there may be other criteria, such as concentrating on quality and product reliability; producing the maximum possible volume of output; fully utilizing the plant or the work force; reducing lead time; generating the maximum return on assets; ensuring flexibility for product or volume changes and so on. Some of these objectives are clearly incompatible, and most companies must choose among price, quality and flexibility. There is an elementary trade-off between low cost and quality, and another between low cost and the flexibility to customize production or to deliver products in a very short lead time.

An important concept in manufacturing is **PRODUCTIVITY**. Productivity means the rate at which the items are produced compared to an input factor. One can refer to labor productivity (how many hours it takes to manufacture the product), or capital productivity (how much capital must be invested to manufacture the product). Productivity rates are often compared, for example, the labor productivity of Japanese automobile workers versus US auto workers.