Chapter MP3 script 38

Production Planning and Control

In this recording we summarise the content of chapter 38 Production Planning and Control. Studying this chapter should help you list the basic elements of a typical production planning and control system; explain why purchasing is an important part of production management; explain Material Requirements Planning (MRP); discuss the use of Just-in-Time Systems in production operations; evaluate the need for inspection and quality control throughout the production process; .

Introducing the chapter, the authors start with 1. There is a close relationship between marketing and operations (production). In the previous section we focussed on marketing and commented on satisfying the customer through products. We described product development in chapter 32 Para 3 and noted the various stages leading up to production. Those products need to be manufactured or created. The production function of an organisation exists in order to make available the goods or services required by the customer. There are several key elements in the production process, and this chapter sets out the main features of a production system.

2. Greasley (2009) divides the subject of operations management into two distinct parts: design and management. In the design part he considers manufacturing process types (to be discussed in the next chapter), process technology (see chapter 41) and process and work design (refer back to chapter 21). He then turns his attention to the management of operations. Areas covered include operations planning and control, lean operations and just in time, enterprise resource planning and supply chain management. Such matters form the basis of this chapter. Other topics typically associated with operations include the Internet (see e-commerce and e- procurement), quality management and business process management. As these subjects have already been covered, to some degree, in other chapters, we will not engage in a detailed discussion about them here..

The key concepts discussed within this chapter are:
just-in-time (JIT) - methods of managing inventory (stock)whereby items are delivered when needed in the production process instead of being stored by the manufacturer; Production process - the way that businesses create products and services; Purchasing - the organizational function, often part of the operations function, that forms contracts with suppliers to buy in materials and services.; .

Other terms discussed include:
Economic order quantity (EOQ); Lean production; Maintenance; Master production schedule (MPS); Material requirements planning (MRP) ; Process control systems. ; Procurement; Scheduling; .

Summarising and concluding, the author(s) make the following comments - 30. There is a close relationship between marketing and operations (production) - the production function of an organisation exists in order to make available the goods or services required by the customer. It is common to take a systems perspective when considering production. A production system is defined in terms of the environment, a strategy, a set of inputs, the transformation process, the outputs and some mechanism for controlling the overall system. Thus, the traditional way to think about operations is as a transformation process which takes a set of inputs and transforms them, in some way, to create outputs (goods or services - offerings) valued by the customer. Inputs include the raw materials and the transformation process describes how they may be altered, transported, stored and inspected. The outputs from a production process are the services and products offered to the customer. The control aspect of the system seeks to ensure that the outputs meet requirements and to identify areas for improvement and change. The operations and supply chain strategy is a functional strategy that indicates how structural and infrastructural elements within the operations and supply chain areas will be acquired and developed to support the overall business strategy. Operations may contribute to strategy through its impact on quality, speed, dependability (in meeting delivery times to a customer), flexibility and cost..

We have now reached the end of the chapter 'Production Planning and Control'.

There are a number of references for this chapter where further reading opportunities are identified for you.
Additionally, there are questions or activities to help develop and test your understanding of this chapter