



Certified Production Planning and Control Sample Material VS-1261

Vskills Certifications

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1. PRODUCTION PLANNING CONTROL

Planning is the process of thinking about and organizing the activities required to achieve a desired goal. It is a basic management function involving formulation of one or more detailed plans to achieve optimum balance of needs or demands with the available resources. The planning process includes

- ✓ identifies the goals or objectives to be achieved
- ✓ formulates strategies to achieve them
- ✓ arranges or creates the means required
- ✓ implements, directs, and monitors all steps in their proper sequence.

Control, is one of the managerial functions like planning, organizing, staffing and directing. It is an important function because it helps to check the errors and to take the corrective action so that deviation from standards are minimized and stated goals of the organization are achieved in a desired manner.

According to modern concepts, control is a foreseeing action whereas earlier concept of control was used only when errors were detected. Control in management means setting standards, measuring actual performance and taking corrective action.

1.1. Production Planning

Production planning is the planning of production and manufacturing modules in a company or industry. It utilizes the resource allocation of activities of employees, materials and production capacity, in order to serve different customers.

Different types of production methods, such as single item manufacturing, batch production, mass production, continuous production etc. have their own type of production planning. Production planning can be combined with production control into production planning and control, or it can be combined and or integrated into enterprise resource planning.

Production planning is used in companies in several different industries, including agriculture, industry, amusement industry, etc.

Production planning is a plan for the future production, in which the facilities needed are determined and arranged. A production plan is made periodically for a specific time period, called the planning horizon. It can comprise the following activities:

- ✓ Determination of the required product mix and factory load to satisfy customer needs.
- ✓ Matching the required level of production to the existing resources.
- ✓ Scheduling and choosing the actual work to be started in the manufacturing facility"
- ✓ Setting up and delivering production orders to production facilities.

In order to develop production plans, the production planner or production planning department needs to work closely together with the marketing department and sales department. They can provide sales forecasts, or a listing of customer orders." The "work is usually selected from a variety

of product types which may require different resources and serve different customers. Therefore, the selection must optimize customer-independent performance measures such as cycle time and customer-dependent performance measures such as on-time delivery."

Production Planning is a managerial function which is mainly concerned with the following important issues

- ✓ What production facilities are required?
- ✓ How these production facilities should be laid down in the space available for production?
- ✓ How they should be used to produce the desired products at the desired rate of production?

Broadly speaking, production planning is concerned with two main aspects: (i) routing or planning work tasks (ii) layout or spatial relationship between the resources. Production planning is dynamic in nature and always remains in fluid state as plans may have to be changed according to the changes in circumstances.

A critical factor in production planning is "the accurate estimation of the productive capacity of available resources, yet this is one of the most difficult tasks to perform well". Production planning should always take "into account material availability, resource availability and knowledge of future demand

Types of planning

Different types of production planning can be applied:

- ✓ Advanced planning and scheduling
- ✓ Capacity planning
- ✓ Master production schedule
- ✓ Material requirements planning
- ✓ MRP II
- ✓ Scheduling
- ✓ Workflow

Related kind of planning in organizations

- ✓ Employee scheduling
- ✓ Enterprise resource planning
- ✓ Inventory control
- ✓ Product planning
- ✓ Project planning
- ✓ Process planning, redirects to Computer-aided process planning
- ✓ Sales and operations planning
- ✓ Strategy

Production Plan for Week 2, December 09					
Demand Management	12/7	12/8	12/9	12/10	12/11
Monthly Demand for Product A	4000	4000	4000	4000	4000
Working Days in Month	23	23	23	23	23
MPS Daily Demand for Product A	174	174	174	174	174

Principles of Production Planning

- ✓ Customer Demand - Before you can plan to assign resources, you have to know how much to produce. Production planning focuses on the principle of meeting the targeted customer demand rate in the most efficient way possible while keeping open the capability to respond to variations in demand.
- ✓ Materials - To fulfill your production target, the materials availability needed to produce should be ensured. The most efficient production planning keeps the minimum materials as standard inventory. Planners should evaluate how much material the company needs, the lead times for orders, the delivery times for suppliers and the reliability of the supply.
- ✓ Equipments - The production planner takes into account the capabilities of the equipment used to produce the output. Basic stability of equipment comprising of availability (A), performance (P) and quality (Q) parameters can be determined by Overall Equipment Effectiveness (OEE).
- ✓ Manpower - Manpower planning requires accurately estimating the number of employees required to do the work. The capacity of the workforce has to match the capabilities of the equipment to plan for the highest efficiency.
- ✓ Processes - Effective production planning makes sure that the processes used for the output continue to operate efficiently and safely. Often the normal operation of a process requires occasional testing and adjustments.
- ✓ Controls - A final production planning principle puts in place controls that detect problems as soon as they occur. Verification of inventory, use of qualified suppliers and personnel, standardization where possible. When controls are in place, it enables to take possible corrective actions to minimize the effects and return production to the required levels.

1.2. Production Control

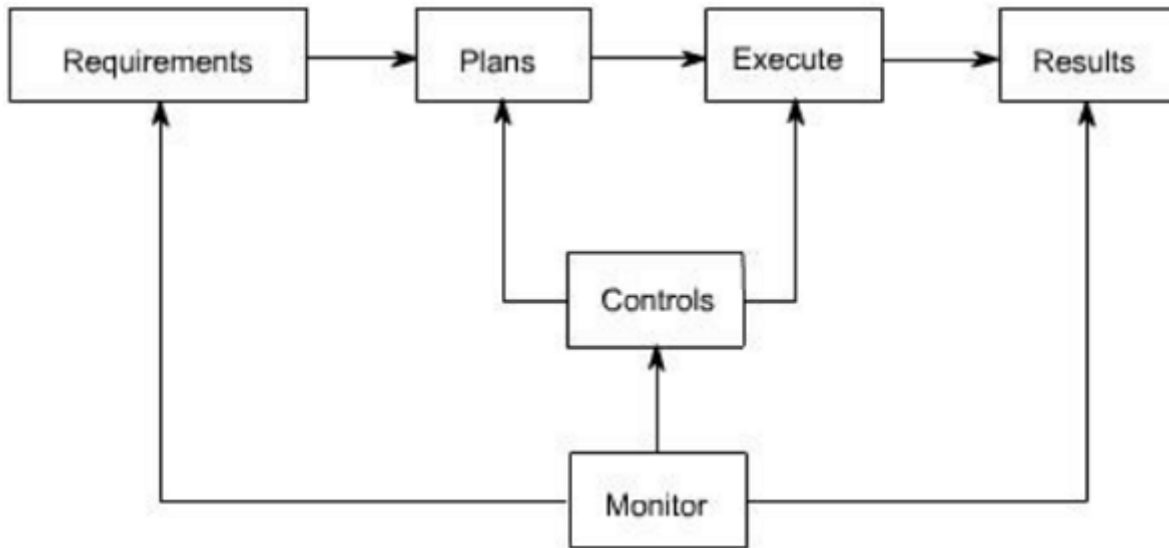
Production control is the activity of monitoring and controlling any particular production or operation. Production control is often run from a specific control room or operations room. With inventory control and quality control, production control is one of the key functions of operations management.

Production control is the task of predicting, planning and scheduling work, taking into account manpower, materials availability and other capacity restrictions, and cost so as to achieve proper quality and quantity at the time it is needed and then following up the schedule to see that the plan is carried out, using whatever systems have proven satisfactory for the purpose.

- ✓ Production control is a mechanism to monitor the execution of the plans. It has several important functions, as
- ✓ Making sure that production operations are started at planned places and planned times.

- ✓ Observing progress of the operations and recording it properly.
- ✓ Analyzing the recorded data with the plans and measuring the deviations.
- ✓ Taking immediate corrective actions to minimize the negative impact of deviations from the plans.
- ✓ Feeding back the recorded information to the planning section in order to improve future plans.

A block diagram depicting the architecture of a control system is shown



Need

Production process of an enterprise is a system consisting of material, labour and equipment combined together by some dependence imposed by operations. Input factors in the process are always uncontrollable. The controller of a production process tries to control the output so that it is in conformity with the target set by the marketing department.

Production control tries to channelise the manufacturing process in such a manner that goods and services are produced according to the requirements of the consumer, i.e., of right quality, shape and quantity at the desired time.

In the present era of cut-throat competition, production control is a boon for an enterprise. It tries to take corrective measures whenever there is some deviation from the planned strategy. Goetz has rightly said that “Management planning seeks consistent, integrated and articulated programmes.” Production control aims to fulfill these needs.

In the report on the elimination of waste in industry. President Noover’s committee states that “Production control is the hallmark of production efficiency. It is a necessity and not a luxury; a profitable investment and not an expense.”

Objectives

The success of an enterprise greatly depends on the performance of its production control department. The production control department generally has to perform the following functions:

- ✓ Provision of raw material, equipment, machines and labour.
- ✓ To organise production schedule in conformity with the demand forecast.
- ✓ The resources are used in the best possible manner in such a way that the cost of production is minimised and delivery date is maintained.
- ✓ Determination of economic production runs with a view to reduce setup costs.
- ✓ Proper co-ordination of the operations of various sections/departments responsible for production.
- ✓ To ensure regular and timely supply of raw material at the desired place and of prescribed quality and quantity to avoid delays in production.
- ✓ To perform inspection of semi-finished and finished goods and use quality control techniques to ascertain that the produced items are of required specifications.
- ✓ It is also responsible for product design and development.

Certifications

➤ Accounting, Banking and Finance

- Certified AML-KYC Compliance Officer
- Certified Business Accountant
- Certified Commercial Banker
- Certified Foreign Exchange Professional
- Certified GAAP Accounting Standards Professional
- Certified Financial Risk Management Professional
- Certified Merger and Acquisition Analyst
- Certified Tally 9.0 Professional
- Certified Treasury Market Professional
- Certified Wealth Manager

➤ Big Data

- Certified Hadoop and Mapreduce Professional

➤ Cloud Computing

- Certified Cloud Computing Professional

➤ Design

- Certified Interior Designer

➤ Digital Media

- Certified Social Media Marketing Professional
- Certified Inbound Marketing Professional
- Certified Digital Marketing Master

➤ Foreign Trade

- Certified Export Import (Foreign Trade) Professional

➤ Health, Nutrition and Well Being

- Certified Fitness Instructor

➤ Hospitality

- Certified Restaurant Team Member (Hospitality)

➤ Human Resources

- Certified HR Compensation Manager
- Certified HR Staffing Manager
- Certified Human Resources Manager
- Certified Performance Appraisal Manager

➤ Office Skills

- Certified Data Entry Operator
- Certified Office Administrator

➤ Project Management

- Certified Project Management Professional

➤ Real Estate

- Certified Real Estate Consultant

➤ Marketing

- Certified Marketing Manager

➤ Quality

- Certified Six Sigma Green Belt Professional
- Certified Six Sigma Black Belt Professional
- Certified TQM Professional

➤ Logistics & Supply Chain Management

- Certified International Logistics Professional
- Certified Logistics & SCM Professional
- Certified Purchase Manager
- Certified Supply Chain Management Professional

➤ Legal

- Certified IPR & Legal Manager
- Certified Labour Law Analyst
- Certified Business Law Analyst
- Certified Corporate Law Analyst

➤ Information Technology

- Certified ASP.NET Programmer
- Certified Basic Network Support Professional
- Certified Business Intelligence Professional
- Certified Core Java Developer
- Certified E-commerce Professional
- Certified IT Support Professional
- Certified PHP Professional
- Certified Selenium Professional
- Certified SEO Professional
- Certified Software Quality Assurance Professional

➤ Mobile Application Development

- Certified Android Apps Developer
- Certified iPhone Apps Developer

➤ Security

- Certified Ethical Hacking and Security Professional
- Certified Network Security Professional

➤ Management

- Certified Corporate Governance Professional
- Certified Corporate Social Responsibility Professional

➤ Life Skills

- Certified Business Communication Specialist
- Certified Public Relations Officer

➤ Media

- Certified Advertising Manager
- Certified Advertising Sales Professional

➤ Sales, BPO

- Certified Sales Manager
- Certified Telesales Executive

& many more job related certifications

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