

Manufacturing Management

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5. OPERATIONS MANAGEMENT

5. a) CNC

5 . b) CAD/CAM

5 . c) Cellular Manufacturing

5. d) FMS

6. FACILITY PLANNING & DESIGN

6. a) Plant Layout & GT

6 . b) Material Handling

7. SUPPLY CHAIN MANAGEMENT

7. a) Materials Management

7. b) MRP

7. c) MRP – II

7. d) Logistics Management

8. MAINTENANCE MANAGEMENT

9. INFORMATION TECHNOLOGY

9 a) END USER COMPUTING

9. b) SAD

9 .c) MANAGEMENT INFORMATION SYSTEMS

9 .d) DECISION SUPPORT SYSTEMS

9. e) ERP

10. AUTOMATION TECHNOLOGIES

11. WORLD CLASS PRACTICES:

11. a) Kaizen & 5S

11. b) BPR

11. c) BENCH MARKING

11. d) VISUAL CONTROL SYSTEM

11. e) DAILY WORK MANAGEMENT

11. f) TPM

Manufacturing Management

1. MANAGEMENT PRACTICES

Management practices must evolve and change to continue to meet the needs of an organisation. Over the years, this has given rise to a wide variety of management techniques, like scientific management, management by objectives, total quality management, risk management, and even crisis management.

1.a) General Management

The General Management Unit is concerned with the leadership and management of the enterprise as a whole. This concern encompasses:

- the personal values and qualities of effective general managers and enterprise leaders;
- the philosophies, values, and strategies that inform successful enterprises; and
- the relation of enterprise to the broader community and other external constituencies.

The Unit's work is conceived and carried out principally in four interest groups, each of which has its own leadership, research agenda, and teaching programs:

- Management Policy and Process
- Management Information Systems
- Society and Enterprise
- Leadership, Values, and Corporate Responsibility

1.b) Manufacturing Management

Manufacturing Management involves the philosophies, strategies, tactics, methods and techniques that enable managers of manufacturing to achieve low unit cost, superb quality, great flexibility and innovation. This field builds on the concept of quality and the philosophy of striving continually to achieve the highest possible organization-wide standards.

1.c) Total Employee Involvement

Total employee involvement is the natural result of a work environment that encourages the active participation of each employee in the day-to-day operation of the company. The environment must clearly define goals and objectives; have stable, uniform direction; trustworthy leadership and, most importantly, have a viable, open communication throughout the organization. This concept sounds easy and the senior management of most companies truly believes that these conditions already exist in their companies. Unfortunately, most companies don't meet any of these criteria and, therefore, don't have the full support of their workforce.

The key to total employee involvement rests with corporate management. Only the highest level can effect the changes in company policy and procedure that are a prerequisite to this critical part of any improvement program. Unfortunately, most corporate managers don't have the knowledge of day-to-day operation, at the plant floor level, required to recognize the limitations and problems that existing management philosophy is causing.

1. FINANCIAL MANAGEMENT

By Financial Management we mean efficient use of economic resources namely capital funds. "Financial management is concerned with the managerial decisions that result in the acquisition and financing of short term and long term credits for the firm". Here it deals with the situations that require selection of specific assets (or combination of assets), the selection of specific problem of size and growth of an enterprise. Here the analysis deals with the expected inflows and outflows of funds and their effect on managerial objectives.

So the analysis simply states two main aspects of financial management like procurement of funds and an effective use of funds to achieve business objectives.

2.a) Financial Accounting

Financial accountancy (or **financial accounting**) is the field of accountancy concerned with the preparation of financial statements for decision makers, such as stockholders, suppliers, banks, government agencies, owners, and other stakeholders. The fundamental need for financial accounting is to reduce principal-agent problem by measuring and monitoring agents' performance and reporting the results to interested users.

Financial accountancy is used to prepare accounting information for people outside the organization or not involved in the day to day running of the company. Managerial accounting provides accounting information to help managers make decisions to manage the business.

Financial accountancy is governed by both local and international accounting standards.

2.b) Cost Accounting

A branch of accounting dealing with the classification, recording, allocation, summarization and reporting of current and prospective costs and analyzing their behaviors. Cost accounting is frequently used to facilitate internal decision making and provides tools with which management can appraise performance and control costs of doing business.

2.c) Budgetary Control

Budgets are simply exercises in calculation unless they are used. When we use a budget, we do so as part of a system of budgetary control. That is, we have some basic ideas of what we want to do, we prepare budgets to help us achieve those ideas; and then once we have done whatever it is that we wanted to do, we check to see if we kept to our budget.

Budgetary control relates to the establishment of budgets relating the responsibilities of budget holders the needs of a policy. Budgetary control also relates to the continuous comparison of actual with budgeted results: it does this to try to ensure that the objectives of that policy are achieved; or to provide a basis for the change of those objectives.

2. d) Engineering Economics

Application of engineering or mathematical analysis and synthesis to decision making in economics. The knowledge and techniques concerned with evaluating the worth of commodities and services relative to their cost. Analysis of the economics of engineering alternatives.

3. PRODUCTION MANAGEMENT

It may defined as:

- The performance of the management activities with regards to selecting, designing, operating, controlling and upgrading the production system.
- It is the processes of effectively planning, coordinating and controlling the production, that is the operations of that part of an enterprise, it means to say that the production and operations management is responsible for the actual transformation of the raw materials into finished products.
- Production management is a function of management, related planning, coordinating and controlling the resources required for production to produce specified by specified methods, by optimal utilization of resources.
- Production management is defined as management function which plans, organizes, coordinates, directs and controls the material supply and processing activities of an enterprise, so that the specified products are produced by specified methods to meet approved sales programme. These activities are carried out in such a manner Labour, Plant and Capital available are used to the best advantage of the organization.

3. a) Production Planning & Control

The production planning and - control is concerned contrary to more general production planning and - control with a partial aspect of production, i.e. with the parts manufacture and assembly.

The phase of the progressing begins after the liquidity check of all necessary resources (personnel, material, parts, operational funds, tools, designs) with the release of the up to then only planned orders. Again the jobs of the approved orders for manufacturing are scheduled within an automatic control loop and on the assigned jobs in-rest and after working progress acknowledged (factory data capture) and are scheduled.

3. b) JIT (Waste Elimination)

Just in Time (JIT) is an inventory system where raw materials are delivered right before they are needed on the assembly line, and finished goods are manufactured just before they are shipped to customers. Just-in-time improves return on investment by substantially reducing overhead cost, limiting quality inspections, and eliminating obsolete inventory. Just-in-time does generate substantial risk, however: under just-in-time systems, production stops when parts aren't delivered on schedule, and huge bottlenecks are created when product isn't shipped on schedule. Thus successful just-in-time manufacturing requires both superior management and a highly disciplined workforce. Just-in-time is closely associated with methods introduced and refined by the Toyota Motor Company of Japan and copied by manufacturers throughout the world. In truth, however, just-in-time is simply one element of the comprehensive Toyota Production System, which attempts to eradicate waste of all kind.

3. c) Enablers of Production Management

(iii) QCO

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