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OPERATIONS MANAGEMENT

Sub Code- MBCII-IV

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PROGRAMME EDUCATIONAL OBJECTIVES: PEO

1. Will be recognized as a creative and an enterprising team leader.
2. Will be a flexible, adaptable and an ethical individual.
3. Will have a holistic approach to problem solving in the dynamic business environment.

Course Objectives Of OM

- CO1: The student manager will be able to differentiate between the planning premises (MTO, MTS, ATO) based on the type of manufacturing processes (Mass, Batch, Job, Project).
- CO2: Given a facility establishment for a product or a service, the student manager will be able to identify/ enlist the factors that affect the facility location decisions.
- CO3: Given a facility establishment for a product or a service or the type of manufacturing processes (Mass, Batch, Job, Project), the student manager will be able to identify the type of layout and draw the layouts.
- CO4: Given the set of activities and their duration of completion, the student manager will be able to Construct a PERT network and identify the critical path and project completion time.

Course Objectives Of OM

- CO5: Given the supplier's vendor rating criteria with weightages and the n number of vendors with their criteria weightages, the student manager will be able to identify the best vendor for the organization.
- CO6: The student manager will be able to enlist the types of inventory management tools based on the types of inventory.
- CO7: Given the levels or phases of operations in a manufacturing unit, the student manager will be able to identify the costs of quality and enlist various costs associated with the same.

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Unit IV

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UNIT 4 SYLLABUS

Quality and Productivity Management:

Concepts of Quality, Dimensions of quality, cost of quality, Product quality and service quality. Introduction to quality systems, concept of TQM, ISO, QFD, SPC, KAIZEN, SIX-SIGMA, 5S. Concepts of productivity, tools of increasing productivity, labour and machine productivity. Introduction to work-study, work measurement, method study and time study.

Quality

Webster's dictionary defines quality as "an inherent characteristic, property or attribute." Q Review will define quality as a characteristic of a product or process that can be measured. Quality control is the science of keeping these characteristics or qualities within certain bounds.

Dimensions of Quality

Performance:

Features:

Reliability:

Conformance:

Durability:

Serviceability:

Aesthetics:

Perceived Quality:

Service Quality

-Qualitative measures

Customers Expect Consistent, reliable, and timely provision of service

-skills necessary

-Accessible

-Polite/ respectful

-Communication(Language)

-Does enough to understand customer needs

-Engenders confidence, through attitude and expertise

Product Quality Measures

- number of defects per unit produced
- number of products returned
- Warranty Claims
- number of certified suppliers used to produce the product
- Statistical process control in production
- Lead time from defect to correction
- Quality awards won

ISO Standards

1. Customer focus
2. Leadership
3. Involvement of people
4. Process approach
5. System approach to management
6. Continual improvement
7. Factual approach to decision making
8. Mutually beneficial supplier relationships

QFD

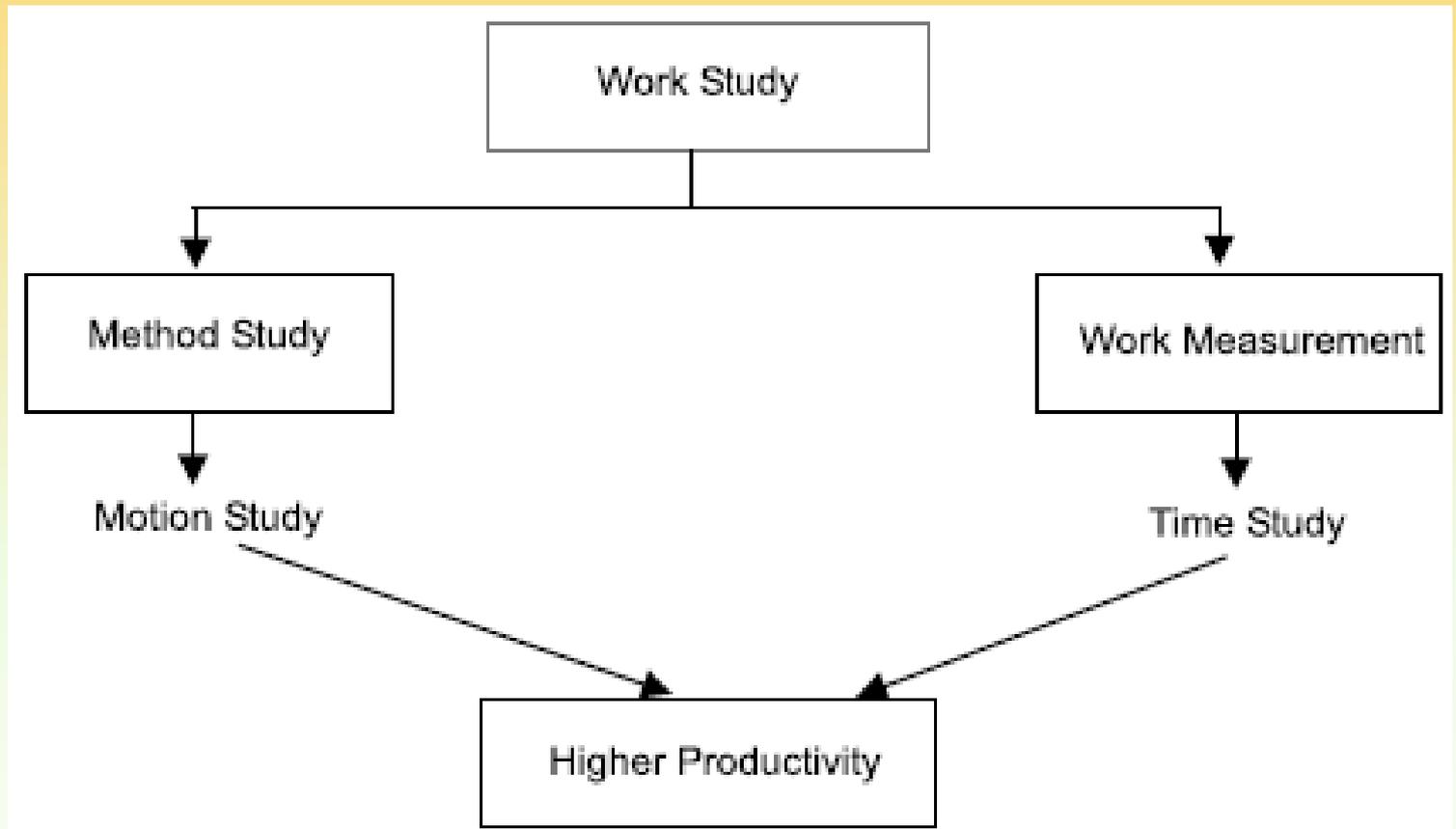
QFD is:

1. Understanding Customer Requirements
2. Quality Systems Thinking + Psychology + Knowledge/Epistemology
3. Maximizing Positive Quality That Adds Value
4. Comprehensive Quality System for Customer Satisfaction
5. Strategy to Stay Ahead of The Game

Kaizen

1. **SEIRI** - SEIRI stands for Sort Out. According to Seiri, employees should sort out and organize things well.
2. **SEITON** - Seiton means to Organize. Research says that employees waste half of their precious.
3. **SEISO** - The word “SEISO” means shine the workplace. The workplace ought to be kept clean. De-clutter your workstation.
4. **SEIKETSU-SEIKETSU** refers to Standardization. Every organization needs to have certain standard rules and set policies to ensure superior quality.
5. **SHITSUKE or Self Discipline** - Employees need to respect organization’s policies and adhere to rules and regulations.

Work Study



Objectives of Method Study

1. Improved layout and design of workplace.
2. Improved and efficient work procedures.
3. Effective utilization of men, machines and materials.
4. Improved design or specification of the final product.

Principles of Motion Study

- A. Use of the human body.
- B. Arrangement of workplace.
- C. Design of tools and equipment.

Reference

Production and Operations Management , K.
Aswathappa , K. Shridhar Bhat.

Total Quality Management: Text and Cases
By: Shridhara Bhat, Himalaya
Publication.