CH :- 1 Introduction.

* Scope:

OM encompasses all organizational activities that require

↓

Raw Material

↓

convert into consumable products & services.

↓

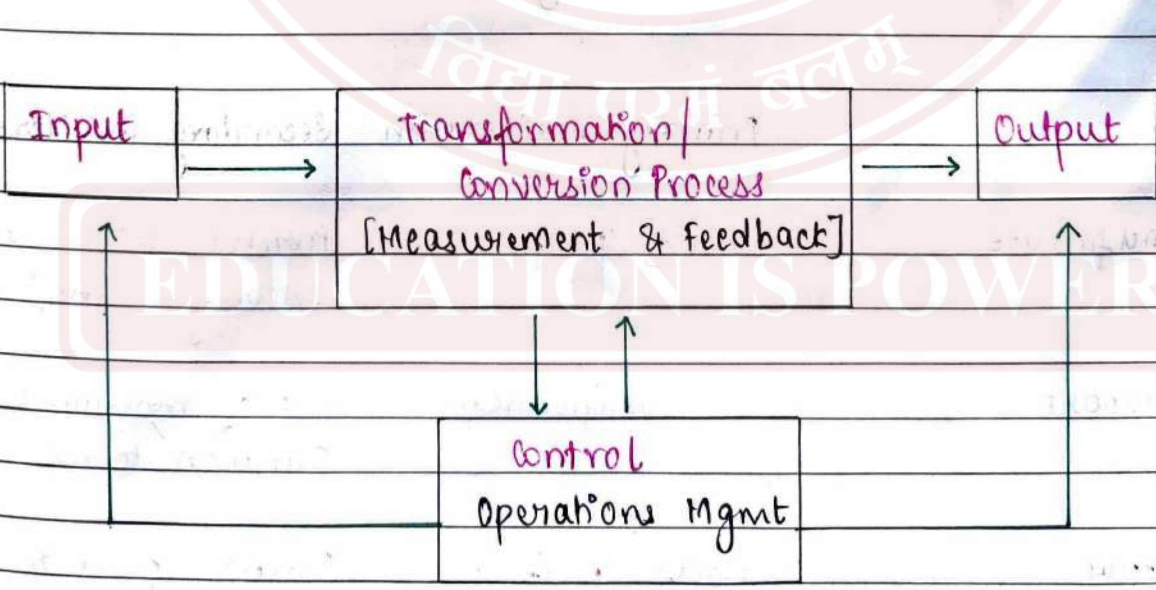
to meet needs of end consumers.

→ In any business organization the ideal situation is to achieve economic match of supply & demand.

Excess Supply → wasteful & costly

Little Supply → Opportunity cost & customer Dissatisfaction.

OM deals with both tangible products & intangible services.



→ Sometimes supply of Goods & Services occur jointly
eg - Study material + Teaching
medicines + Doctor.

* Objectives of OM.

Customer Service | Resource Utilization.

1) Customer Service:-
→ Satisfaction of customer wants.
→ Key objective of operation Mgmt.
→ Provide something with
a) Cost
b) Timing
[Right thing at Right place & at Right time]

3 Aspects of Customer Service → Specification, Cost, Timing

	Primary Consideration	Secondary Consider-
1) Manufacture	[Goods] Specification	Purchase price (Cost) Delivery (Time)
2) Transport	Specification	Cost of movement Duration to move.
3) Supply	Goods Specification	Purchase price & delivery time
4) Service	Specification	Cost of treatment, delay, wait (Time)

2) Resource Utilization :-

- → Resources should be utilized effectively
- → Obtaining maximum effect from resources or minimizing their loss, under utilization or waste.
- → Time utilization, space utilization, level of activity etc.

Hence, twin objectives of OM

Customer Service Objective
↓
To provide agreed / adequate levels of customer service by providing goods / services with right specification, at right cost & at right time

Resource Utilization Objective
↓
To achieve agreed levels of utilization of materials, machines and labour.

* Scope of OM :-

- → Location of facilities
- → Plant layouts & Material Handling
- → Product Design
- → Process Design
- → Prodn planning & control
- → Quality control
- → Material Management
- → Maintenance Management.

* Major Decision Areas:-
  - Product Selection
  - Facility Location selection.
  - Demand forecasting
  - Process selection & layout decision.
  - Capacity Planning
  - Aggregate planning, master prodn schedule.
  - Material Requirement Planning / Manufacturing Resource planning / Distribution Resource planning / Enterprise Resource Planning
  - Inventory Mgmt
  - Supplier Selection / Sourcing
  - Process Mgmt
  - Quality Mgmt
  - Maintenance
  - Warehousing / Transportation
  - Reverse Logistics.

* Characteristics of Modern Operations functions.

1) Manufacturing as Competitive Advantage:-
Today production system offers vast scope to gain competitive edge and firms intend to exploit the potential.
→ Total Quality Mgmt (TQM)
→ Time Based Competition
→ Business Process Re-engineering (BPRE)
→ Just In Time (JIT)
→ Focused Factory
→ Flexible Manufacturing Systems (FMS)
→ Computer Integrated Manufacturing (CIM)
→ Virtual Corporation etc.

are some techniques which the companies are employing to gain competitive advantage.

2) Services Orientation :-

The entire manufacturing needs to be geared to serve

i) Intangible & Perishable nature of services.

2) Constant interactions with clients

3) Small volumes of production to serve local markets.

4) facilities to serve local market.

3] Disappearance of Smokestacks.

a) Protective labour legislation
b) Environmental movement
c) Gradual emergence of Knowledge based orgn.

} total transformation in production system

working environment friendly → Homes away from homes.

4) Small has become beautiful.

E.F. Schumacher → famous book "Small is Beautiful"

→ Opposed giant organizations & increased specialisations.
→ He advocated → Smaller working units,
→ Community ownership,
→ Regional workplaces utilising local labour & resources.

* Recent Trends in Production & Operations Management.

Q) How is Modern operations management characterized?

1) Technological Development.
2) Shorter product life cycle.
3) changing needs & preferences of the customers.
4) Disruptions and pressure for innovations.
5) Globalization
6) Requirement for supreme service at an affordable price
7) Pressure for optimization of operational cost.

* Distinguish Between Prod^n Mgmt & Operations Mgmt.

PM	OM
→ More used for a system where tangible goods are produced.	→ used where various inputs are transformed into intangible services (Banks, Airlines, libraries etc)
→ Preceeds OM in historical growth of subject.	→ Latest term used now-a-~~days~~ days.

* Recent trends in PM & OM.

1) Global Market Place
   - → Operations in many countries where they have economic advantage
   - → This has resulted in steep increase in the level of competition

2) Productions/ operations strategy:
   - → Recognition of importance of Prod^n strategy.
   - → Necessary for overall business strategy.

3) Total Quality Management (TQM)
→ Achieve customer satisfaction by improving quality of goods & services.

4) Flexibility:-
Flexibility in →
- Volume of demand
- Product Mix demand
- Product Design
- Delivery Schedules.

[This is sometimes called as Agile Manufacturing]

5) Time Reduction:-

Reduction of manufacturing cycle time & Speed to market for a new product.

provides competitive edge to firm.

6) Technology:-

→ new products
→ new processes
→ new materials & components.
← Automation, Computerisation, Info. & Communication technologies.

7) Worker Involvement:-

Assigning Responsibility for
- Decision making &
- Problem solving

to lower levels in Orgn.

8) Re-engineering
→ Clean slate Approach.
→ Starting from scratch in re-designing the business process.

9) Environmental issues:
→ pollution control
→ reducing waste
→ using less toxic chemicals
→ waste disposal
→ recycling waste
→ using biodegradable materials for packaging.

10) Corporate Downsizing: [Right Sizing]

Due to competition
lowering productivity
Improved profit
Higher dividend for SH
} forced firm to shed their obesity.

11) Supply chain Management:-

Mgmt of supply chain reduces → cost of transportation
→ warehousing
→ distribution

12) Lean Production:
→ System which uses minimal amount of resources to produce high volume of high quality goods.

→ These system have advantage of both
mass production
job production.