

Operations Management

The transformation of
tangible/intangible factors into
products & services

Operations Management & Operations Strategy

- Operations management involves implementation of operations strategy
- Operations strategy is directly connected to & informed by the overall corporate strategic plan
- Explicit operations strategy may not exist in many firms!! Ops. management by reaction & guesswork!

Operations strategy - 5 P's

- Product
- Plant
- Processes
- Programs
- People

5 P's can be analysed with
SWOT to assist strategy
development.

Product

- What is to be produced? - market considerations, product range
- Levels of technological sophistication?
- Transition from R&D prototype to manufactured article
- Value engineering - cost/design analysis

Plant

- Location - where, why?
- Type of plant & equipment
- Amount & level of technical sophistication
- Maintenance of plant & equipment -
strategy, schedule

Advanced Manufacturing Technology

- Technology use to change quality, volume & set-up times
- Lowers material, reworking & labour costs
- Increased reliability & repeatability
- High set-up costs - P & associated E
- Availability & cost of technical expertise
- Removal of some OHS issues

Processes

- Type of manufacturing process?
- Customer order sizes / production runs
- Product flexibility
- Process time
- Number of set-ups & changeovers

Types of production

- Batch production
- Flow production
- Continuous production
- Jobbing
- Mass production
- Group technology
- Flexible manufacturing systems

Programs

- Production Coordination
- Integration
- Forecasting

Integration

- Process planning
- Design
- Manufacture
- Materials
- Systems development / acquisition

Forecasting

- Decision making
- Quantitative - historical, forward orders
- Qualitative - customer / supplier relations, experience

Materials Requirement Planning

- Master production schedule - overall plan, numbers, timing etc
- Bill of materials file - parts & raw materials required & dependant relationships
- Inventory status - record of materials, components, products
- Determination of capacity v load

Just in Time (JIT)

- Toyota derived system
- Kanbans - production, requisition
- Work stations produce items / processes as required by next work station

Optimised Production Technology (OPT)

- Computerised production - complex algorithm
- Aims to balance the flow, not capacity
- Remove constraints & bottlenecks
- Variability in batch flows
- Looks for optimised solutions examining all constraints simultaneously

People

- Who?
- Numbers?
- Locations?
- Skills?
- Deployment?
- Motivation & performance
- Legal rights & organisational responsibilities