

Technology Management in Operations

Course Content

1. Corporate Strategy and Technology
Pitfalls of functional based strategies
Strategic Integration of Technology and Operations
2. Technology Management and New Product Development (NPD)
Corporate Strategy and New Product Development
Organization for NPD
3. Technology management and Idea Generation for NPD
Discovering customer needs
Sources for new product ideas
Market assessment and value analysis
Evaluation of new product ideas
4. Technology management and NPD project selection
Assessment of product concept
Assessment of competitors
Concept testing
Financial analysis of projects
5. Technology Management and Product design
Integrated product design
Design for Quality using Quality Function Deployment
Design for Reliability
Design for Manufacturability
6. Process Choice
Business Implication of process choice – project, jobbing, line, batch, continuous
Hybrid processes – batch related, line related
Technology Strategy – flexibility, push vs pull, technological

opportunities

7. Make or Buy
Core elements of the business and strategic considerations
Span of process and product technology

8. Mass Customization
Market trends
Pre-requisites for mass customization
Technologies for mass customization

Reference Text

1. Operation management for competitive Advantage by Chase-Jacobs - Aquilano