

Service Operations Management

Course Objectives

This course enlightens to the concepts, principles, problems, and practices of successful service operations management. Emphasis is focused on preparing students to identify and apply appropriate management processes to ensure efficient, effective, and quality oriented service operations, while achieving operational excellence.

Syllabus

Understanding Services economy, Demand and Capacity issues in service systems, Service Inventory and Supply Chain Management, Service Quality, Service facility, - Live Project or case study analysis.

Expected Outcome

Upon completion of this course, the students will be able to:

1. To obtain an overview of the successful Service Operations Management (SOM) function through the introduction of the topics traditionally associated with the study of Service Operations Management. 2. To develop an understanding of the terminology and responsibilities that relate to Service Operations Management. 3. To formulate and describe the function of the Service Operations Management discipline in various sectors.

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COURSE PLAN

1 Understanding Services Economy

Overview and imperatives of Services; Global trends in Services Sector; Changing paradigms in Competitiveness of services; Services – Manufacturing Continuum; Recent trends in manufacturing, increased role of services in manufacturing; Developing an overall vision for the service system; Developing a service strategy; Service Positioning & Implications for Service Delivery - Design Degree of customer contact, divergence, customization; Service blue printing; Service Enhancement using Internet; Pricing strategies in Services; Performance issues in service systems; value of self-service in an economy; roles of front-line employees, customers, operations, and marketing in the service innovation process.

2 Demand and Capacity issues in service systems

Capacity demand in services; - Smoothing Customer Demand In Services; Service Capacity Management; Yield management; Resource and Workforce Scheduling in Services; Capacity, Capacity build up strategies Capacity Vs System Performance; Introduction to Queuing System; Queuing Theory Applications in Service Systems; Characteristics of Queuing system; Queuing Models; Demand and capacity issues related to growth, expansion strategies, franchising. Offshore operations; Services Management in IT/ITES Sectors Capacity Management Issues.

First Internal Examination

Service Inventory and Supply Chain Management

Service inventory management; Service supply chains; Processes in Service Supply Chain; Data Envelopment Analysis; Simulation as a tool for design of services; Use of simulation software for modelling; Nature of design issues addressed using simulation; Simulation Applications in Service System Design; Vehicle Routing and Scheduling; Inventory Pooling.

4 Dimensions in Quality, Service Quality Five Gap Model; Kano's Model; Measuring Service Quality – SERVQUAL, Walk-through Audit; Service Recovery – Service Guarantees, Service encounter – triad, service culture, Service profit chain – Service consolidation; Critical Fractiles: The Newsvendor Model (Optimal Service Levels).

Second Internal Examination

5 Process behaviour – environmental dimensions – framework; Facility design – nature, objectives, process analysis – process flow diagram, process steps, simulation; Service facility layout; Service Facility Location – considerations, facility location techniques – metropolitan metric, Euclidean, centre of gravity, retail outlet location, location set covering problem; Ford's Auto collection concept;

Product Support – Customer Centric strategy, repairable parts inventory management, Performance based logistics.

Service Improvement – a mini-consulting project. It involves use of the methodologies introduced in class to analyze a real life service operations system, diagnose its problems, identify opportunities for improvement and quantify potential costs, benefits, risks and service impacts (at a nearby service station or Car dealership or automobile workshop or the like)

Final Examination