NEW SERVICE DESIGN & DEVELOPMENT

Learning Objectives

1. To discuss the new service development process and service
design using service blueprint to align service concept with
service delivery
3.1 SERVICE DESIGN SYSTEM

- Service design process is comprised of service system elements which form a blueprint to communicate the service concept to customers and employees.
- Service system elements can be categorized as structural and managerial elements which should be in place to offer services that achieve strategic service vision as shown in Figure 3.1.
FIGURE 3.1 SERVICE DESIGN SYSTEM ELEMENTS

Service Design system

Comprised of

Structural Elements
- Delivery System
- Location
- Capacity Planning
- Facility Design

Managerial Elements
- Service Encounter
- Information
- Quality
- Managerial Capacity & Demand

To achieve strategic service vision
3.1.1 Structural Elements

The decisions pertaining to structural elements are of strategic in nature, which have to be planned considering long-time horizon while designing service delivery system. These structural elements are presented below.

Delivery System

- Front & back office operations
- Automation like self-service technologies
- Customer participation

Facility Design

- Size of facility
- Aesthetics and ambience
- Layout and expansion consideration

Facility Location

- Customer demographics
- Single versus multiple sites
- Site characteristics
- Service concepts and objectives of service delivery

Capacity Planning

- Managing waiting lines
3.1.2 Managerial Elements

Once structural elements are in place, service organization take into account the activities require personal interaction or virtual interaction with the customer as a service encounter. It is important to consider managerial elements while designing service which can improve customer interaction and service quality at the same time provide hassle free service with less waiting time. Such elements are discussed below.

- Service Encounter
  - Characteristics of service provider, employees & customer
- Quality
  - Reducing gaps between customer expectation and perceptions
- Managing capacity & demand
- Information

3.2 New Service Development

- For their survival, service companies must develop new services continuously. New service is defined as an offering not previously available to the customers using Innovation process
New service development process is required to accommodate dynamic requirements of customers/ market, to bring service innovations that achieve Competitive advantage leveraging the speed of technological developments.

New service development process faces challenges in terms that service cannot have extensive R & D departments like manufacturing or processing industry? It is very difficult to imitate or make prototype of new service and test it in some laboratory.

New Service Development (NSD) can be demonstrated as a cycle shown in Figure 3.2, which takes service innovation as inputs to the NSD cycle.

**FIGURE 3.2 NEW SERVICE DEVELOPMENT (NSD)**

### 3.2.1 New Service Development: Innovation

Innovation can be defined as successful exploitation of new ideas. Innovation is must to face the challenges or competition in service due to

- Low entry barriers in service
Few patent protection

Lower capital investments

Shorter service product cycles

Innovation can also be perceived as novel, useful and creative ideas that improve effectiveness & delivered to the customers to create commercial value.

3.2.2 Challenges in Service Innovation

Services are mainly thought of consumers of innovations (mostly developed in manufacturing sector) and Imitators of or facilitators to innovation of manufacturing firms

Difficulties in realizing innovation in services because

- Services may or may not use specific resources in the form of R&D departments like other goods
- Service innovations may be are not result of deliberate activity at all
- Innovations are recognized only a posteriori as they emerge in the process of service provision on the basis of customer’s specific needs
- Service is both a product and a process and because of nature and characteristics of services it is difficult to change or improve service.
- Service organization or employees may innovate while providing good quality service or while meeting extra ordinary client’s request, but they may think that it is to satisfy customer and never realized that they have actually innovated something.
3.2.3 Classification of service innovation

Service innovation can be classified as radical innovation and incremental innovation as shown in Figure 3.3.

![Classification of Service Innovation Diagram](image)

**FIGURE 3.3: CLASSIFICATION OF SERVICE INNOVATION**

3.2.4 Drivers of Innovation

- Financial pressures or increased competition to decrease costs, increase efficiency
- The changing economy
- Stricter government regulations
- Need for sustainable development
- Shorter product life cycles
- Community and social expectations and pressures
- Demographic, social, and market changes
- Rising customer expectations regarding service and quality
- Greater availability of potentially useful and inexpensive new technologies
- New ideas from customers, strategic partners, and employees

### 3.2.5 Radical Innovations

In radical innovation new service system with final service product, technical and competence characteristics replaces the old service system. It can visualize as step change in some measure of growth like sales and efficiency. This innovation can take following forms.

#### Major Innovation

- New service for markets as yet undefined mostly driven by information and computer based technology such as eBay

#### Start-up Business

- New services in a market that is already served by existing services such as make-my-trip, clear trip

#### New Services for the Market Presently Served

- New service offerings to existing customers of an organization such as ATMs at Airport
3.2.6 Incremental Innovations

Incremental innovation results due to modest changes in the existing services. It can take different forms.

- **Service Line Extensions**
  - Augmentation of existing service line such as new menu items in some restaurants

- **Service Improvements**
  - Changes in features of currently offered service such as web based check-in services offered by airlines

- **Style Changes**
  - Modest visible changes in appearances such as changes in aesthetics

**Example: Service Innovation**

Dell Computer Corporation offers same design of computers (laptops) and utilizes similar manufacturing systems as their competitors, but they differ significantly in terms of how they serve their customers’ needs both in terms of sales and after sales services. Dell’s strategy of skipping the middleman (i.e., the sales agent) and allowing customers to configure their computers to their own requirements have kept Dell apart from its competitors and helped build its significant market share. At the same time Dell provides online after sales service, where engineers can interact with the customer and rectify the problems using internet.
Example: Service Innovation

RFID (Radio Frequency Identification Device) tags are now replacing the use of bar codes. The current process of purchasing goods using bar codes in a supermarket takes a lot of customer’s time in form of waiting. The bar code has to check and scan each individual item before a customer pays. If RFID tags are used in place of bar codes then RFID tags can be detected remotely by radio receivers. If all the items in a customer’s basket have RFID tags, then all it need to do is push the shopping basket under such a receiver. It will remotely detect every item in the basket. RFID tags will reduce the customer’s waiting time in queues and hence supermarkets which install RFID tags can attract more customers than their slower-to-innovate rivals.

3.3 New Service Development Cycle

- After considering innovations as input to NSD cycle, the cycle as shown in Figure 3.4 enters into planning stage, which is comprised of
  - Design: Formulation of new services, objective / strategy, Idea generation and screening and Concept development and testing
  - Analysis: Business analysis and Project authorization
- After planning stage, cycle enters into execution stage which is comprised of
Development: Service design and testing, Process and system design and testing, Marketing program design and testing, Personnel training, Service testing and pilot run and Test marketing

Full launch: Full-scale launch and Post-launch review

The steps involved in all the stages; design, analysis, development and full launch are described in Figure 3.5, 3.6, 3.7 and 3.8 respectively.

**FIGURE 3.4 NEW SERVICE DEVELOPMENT CYCLE**
FIGURE 3.5 NSD CYCLE: DEVELOPMENT STAGE

**Formulation of new service objective/strategy**
- Align service strategy with organization’s overall strategy
- How customers value new service and how customers evaluate competing services

**Idea Generation**
Gather ideas from customers, employees, customers complaints & feedback, stakeholders and competitors

**Idea screening**
Only viable & promising ideas considering corresponding potential profits are separated & selected from all gathered ideas

**Concept development and testing**
- Service concept, which is the description of benefits, solutions and value which a service is supposed to provide, is developed
- Concept testing is done to determine potential customer’s response to service concept
- Test whether new service designed will meet unmet demand
- Have customers understood the idea of proposed service so that they can evaluate the service on the basis of value & benefits
FIGURE 3.6: NSD CYCLE: ANALYSIS STAGE

**Business Analysis**
- Economic viability of new service after concept testing
- Whether there is large enough market & if yes then whether service will be able to generate reasonable profits?
- Revive projections & cost analysis are done, which is recommended to top management for implementation, if found viable.

**Project Authorization**
- Approval of top management
- Allocation of resource for the design of new service and implementation of service delivery system
FIGURE 3.7: NSD CYCLE: DESIGN STAGE

Service design and Testing
- Detailed description of service with specific features and characteristics of the service
- It is also important to analyze and present how new service would be different from competitors
- The whole set of service features require all the functional areas to work in parallel

Process and System design and Testing
- As we know service can be treated as a process and product both.
- So each service process in new service is fuelled with quality and value
- Each new service process is design by capturing the following points
  1. Whether customer will be in direct contact with service employee or not.
  2. Participation of customers in service production
  3. Degree of customization
  4. Facilitating goods and equipment’s in service delivery

Marketing program design and testing
- Develop and test marketing program for introduction, sales and distribution of new service with potential customers

Personal training
- Employee selection & training is done regarding serving customers

Service testing and pilot run
- Offer service on a limited basis with live testing
- Determine customer acceptance & information from firsthand knowledge & make necessary refinements in service accordingly

Test Marketing
- Investigate the salability of the new service by offering service on a limited basis but larger scale than pilot run
3.3.1 NSD Cycle: Service Delivery System

Service delivery system is a very important component while designing & delivery of new service as shown in Figure 3.9. The elements of service delivery system are

1. People: Organize people into cross-functional teams
2. Technology: Use appropriate tools and resources for planning and execution
3. System: Develop organizational culture that facilitate the entire service delivery process so that products can be developed quickly and effectively.
3.4 Service Delivery System Design: Service Blueprinting

Service blueprinting is a technique to design service delivery system as shown in figure 3.10.

- A customer focused approach for service innovation and service improvement
- Helps in visualizing the service processes and hence provide a bird’s-eye view of the service system
- Identifying points of customer contact with service system
- Physical evidence associated with services from customer’s perspective
Physical Evidence

*Customer will see and experience*

*Customer initiated steps, choices and interactions during the process of purchasing consuming and evaluating service*

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Line of Interaction

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On stage contact person

*Actions in the full view of customer*

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Line of Visibility

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Back stage contact person

*Actions not seen by customer*

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Line of Internal Interaction

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Support process

*Capacity requirement of the back office system*

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**FIGURE 3.10: BLUEPRINT - TESTING OF THE SERVICE CONCEPT**
● Connects the support processes throughout the organization as shown in Figure 3.11.

● In place of costly implementation of pilot studies, blueprints allow the creation, study and testing of services conceptually on a paper. See one example of hotel blueprint in Figure 3.12.

**FIGURE 3.11: COMPONENTS OF SERVICE BLUEPRINT**

| Physical Evidence | → Elements which customers will see & experience  
|                  | All the steps that customers initiate & interact with service provider as part of service delivery process  
| Customer Actions | → Face-to-face service encounter (or moment of truth) with frontline contact employee  
| Line of Interaction |  
| Onstage/ visible contact employee Actions | → Interactions which are invisible, where customer does not have face-to-face interaction  
| Line to visibility |  
| Back Stage/ Invisible contact employee Actions | → Activities carried out by non contact employees with in the organizations that need to happen in order to deliver service  
| Line of Internal interaction |  
| Support processes |  

EXAMPLE 3.12: SERVICE BLUEPRINT OF A HOTEL

3.4.1 Service Blueprint Advantages

- In the service blueprint we can visually see the activities which need direct customer contact and which activities are back-office activities. This information can be utilized to provide appropriate training to employees and to develop good communication skills.
Service blueprint can also enhance the quality and efficiency. It gives a good scope to determine potential areas where service failure may occur, hence failure mode analysis can be performed.

Service Blueprint facilitates problem solving and creative thinking and hence a good tool to innovate in services.

Considering quality issues right at the design stage will help in avoiding quality losses or service failure later.

It provides a service process structure which can help in devising different approaches for service system design appropriate for different types of service organizations.

Blueprint provides a common platform for all stakeholders to participate in the process where everybody gain insights into how their roles fit into the integrated whole, which facilitate innovation.