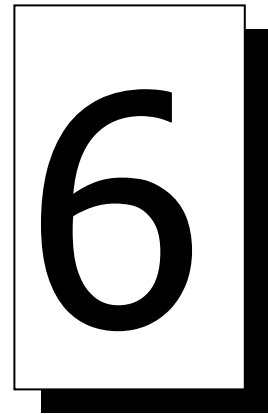


Service Product Design and Process Selection



Unit Introduction

The decisions associated with the planning and development of the service products is central to the success of service marketing organizations. The selection and development of a service product and the range of services offered are strategic decisions. This influences many other decisions in the organization as, whether to do with the kind of personnel employed, or with the integration of other elements of the marketing mixes with the service product mix. Service product strategies are no less important to service marketing organizations than they are to organizations marketing goods. Characteristics like intangibility and the involvement of the consumer in service production and performance do not invalidate the relevance of product planning and development to service settings. Keeping these in mind, we will try to focus in this unit on: Nature and importance of service sector; Service design; Service blueprint, Service failsafing; Success factors for service technology.

Lesson one: Nature and Importance of Service Sector

Lesson Objectives

After completing this lesson you will be able to:

- Explain the concept of service and its nature
- Discuss the difference between goods and services
- Identify the importance of service in the national economy

What is Service?

Over time the concept of service has changed a lot. At different times it had different meaning to different people. As such, Zeithml and Bitner have defined services as “deeds, processes, and performances”. The definition is too narrow because it concentrates only on the act of providing something. But the very act may not have any economic value in such a situation, the act cannot be service rather it would be dis-service. For example, someone constantly shouting on your face is doing an act, which may not be desired by you. On the other hand, Nicholson defined customer service as “any aspect of the product or service which attracts the customer to make a purchase”. The definition includes range of products on offer, design initiative, price, delivery, quality and service. This definition combines both the acts of providing and ensuring availability of quality goods. But this definition does not include those acts that come alone without any tangible goods accompanying it for example, a teacher may give you lecture but he may not provide any lecture note with his lecture.

Services are intangible and it is produced & consumed togetherly.

A broad and comprehensive definition of services given by Quinn, Baruch and Paquette is “include all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added value in forms that are essentially intangible concerns of its first purchasers”. According to this definition services are produced and consumed simultaneously. It is intangible in nature with desired value added to it. The definition is more to the point and acceptable. In this lesson, when we refer to service we would be implying this meaning of service.

Activity: Make a list of the key differences among the customer product, customer service and service product. Discuss your list with your tutor and other students of the tutorial class.

The Nature of Services

Every consumer purchase falls somewhere on the scale of relative dominance between its service and product elements (Figure 6.1). The offering of a standard necktie is clearly, product-dominant and in contrast, a tailored suit contains a significant service element in addition to the physical apparel.

Seven generalizations about the nature of service

1. Everyone is an expert on services. We all think we know what we want from a service organization and, by the very process of living, we have a good deal of experience with the service creation process.
2. Services are idiosyncratic—what works well in providing one kind of service may prove disastrous in another. For example, consuming a

restaurant meal in less than half an hour may be exactly what you want at *jack-in-the-box*, but it may be totally unacceptable at an expensive French restaurant.

- Quality of work is not quality of service. An auto dealer may do good work on your car, but it may take a week to get the job done.

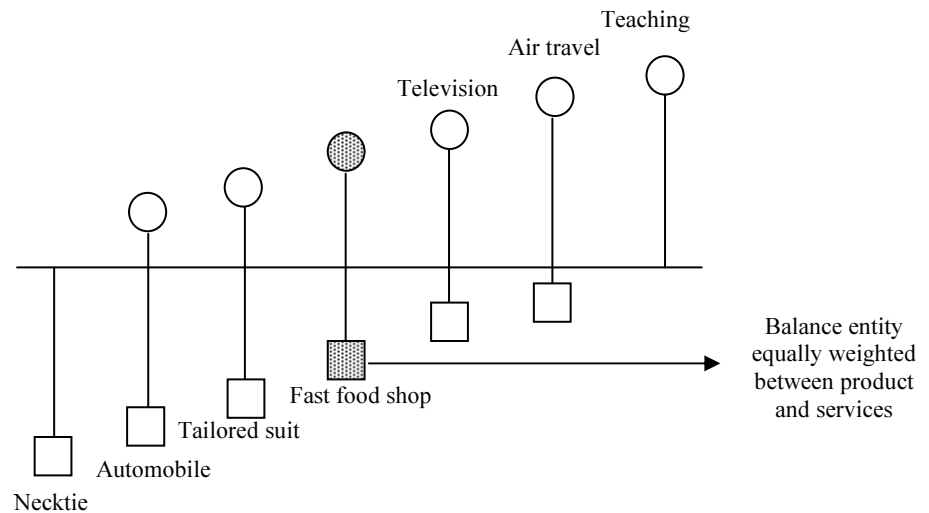


Figure 6.1.1: Product and Service Demarcation

- Most services contain a mix of tangible and intangible attributes that constitute a service package. This package requires different approaches for design and management than the production of goods.
- High-contact services (described later) are experienced, whereas goods are consumed.
- Effective management of services requires an understanding of marketing and personnel, as well as operations.
- Services often take the form of cycles of encounters involving face-to-face, phone, electromechanical, and/or mail interactions. (The term *encounter*, by the way, is defined as “meeting in conflict or battle” and hence is often apt as we make our way through the service economy.)

Difference between Manufactured Goods and Services

The definition of service has given us an understanding as to what we mean by service. But to have a better understanding about service let us try to differentiate it from manufactured goods. Everyone recognizes that there is a clear and distinct difference between manufactured goods and services. There is inherent difference between services and goods that fall under seven broad categories as shown in Figure 8.1.1. However, these distinctions actually represent the extreme ends of a continuum. In real life we find that both may contain some or all the characteristics of the other.

- Physical appearance:* Intangibility of service is one of its major features. Manufactured goods have shape, size and appearance. Customers can feel it, touch it, smell it, squeeze it, and even taste it. But in case of services it does not have any shape or size or appearance. It is an outcome of an act, idea or performance. Many a time the consumers even have problem grasping

Service is an outcome of an act, idea or performance.

mentally that a service has been provided. For example, when a teacher evaluates an examination script, many students even do not realize that a service has been provided. Doctors examine patients, lawyers plead cases, architects plan for buildings, fund managers hedge against inflation, etc., are all examples of people providing essential services, that do not have any tangible features in them.

Description	Services	Goods
Physical Appearance	Intangible	Tangible
Quality	Heterogeneous	Standardized
Durability/Shelf-life	Short, perishable	Long, non-perishable
Customer Contact	Very high	Very low
Response Time	Short	Long
Market	Local	Regional, International
Facility	Small	Large

Figure 6.1.1: Difference between Manufactured Goods and Services

- b) *Quality*: Another distinctive feature of service is that it does not have standardized quality. All manufactured products, since they have distinctive features, can be measured for their quality. All their features like weight, length, smoothness, color, durability can be measured against a scale and they can be produced against a specific standard. Whereas, no two services are alike. Services are provided by humans and are consumed by humans. Because of differences in their ability, different people perform differently. Even at different times, because of distraction or fatigue, the same person may perform differently. Not only that, different people appreciate quality of services differently.
- c) *Durability/shelf-life*: Manufactured goods are physical and durable products. They can be produced, stored and transported in anticipation of future demand. Creating inventories allows managers to cope with peaks and dips in demand, and enable them to smoothen production schedules. On the other hand, services perish as they are being produced. Services cannot be produced or stored for future use. It has to be consumed as it is being produced. An empty seat in a classroom, an hour time of a doctor, or an empty table in a restaurant cannot be reclaimed, resold or reused at a later time. Service organizations need to be creative in their planning for capacity and in demand forecasting to ensure proper utilization of their resources.
- d) *Customer contact*: Most customers for manufactured products have little or no contact with the production facility. Primary customer contact is left to the retailers, whose main responsibility is to create availability utility, a prime function of a service provider. A manufacturer produces a product, ships it a long distance, where the customer receives the good and consumes it for a long period of time. However, in service organizations the services cannot be produced without the active participation of the customers. For example, a student needs to attend lecture classes and sit for examinations. Without his or her active participation the whole process of providing service is wasted. Hospital and theaters are other examples of service where customers' presence is very essential. Quality of service and customer satisfaction is highly dependent on the interaction between employees and customers.

Services perish as they are being produced.

Services cannot be produced without the active participation of the customers.

Response time in service has to be short to avoid customer dissatisfaction.

- e) *Response time:* Customers do not like to wait for goods or services. This is one reason why the manufacturer of goods produces ahead in anticipation of demand. But still, manufacturers generally have days or weeks to meet customers' demand. In case of manufactured products, customers recognize that the producers need time to make the goods and thus are ready to wait. For example, if you go to a tailor for a shirt, you would not mind waiting for a few days for the tailor to cut and stitch the shirt. In contrast, you as a grocery store customer would be very annoyed if the sales-boy takes time to respond to your request. Response time in service has to be short to avoid customer dissatisfaction.
- f) *Market:* Because of storability and transportability, the producers of manufactured goods can expect demand for its products dispersed geographically. Factory of ECONO ball pen is located in Kushtia but demand for it is all over the country. But in contrast, because of its perishability, demand for a specific service is very local in nature. A patient would prefer to go to the nearest hospital, or prefer to go to the grocery store nearest to home. It would be ridiculous to expect an executive working in Motijheel to maintain salary account in a bank at Savar.
- g) *Facility:* Manufacturing system requires a large production facility, highly automated machines, and huge capital investment. In general, services require low capital investment, more flexible machines and high labor involvement. Services are characterized by the need to tailor working activities according to the different individual needs of the customers. Machines are very rigid and even highly automated; computerized machines can't change their sequence of activities to meet variations in the needs of individual customers. Whereas, humans are adaptable to changes, as such, human employees are more suitable to meet the needs of customers. Customers also prefer to deal with human employees rather than automated machines.

Services require low capital investment, more flexible machines and high labor involvement.

Activity: Are there differences between customer services and service products? Discuss your answer logically.

Quality of Service

Because of its intangibility, quality of services is measured against different dimensions.

The presence of service does not lead to enhanced satisfaction, but its absence no doubt creates discontentment.

- a) *Tangible- Representing the environment:* Services are intangible and are outcome of an act or performance. They cannot be measured against any specific scale. But the environment in which the service is provided is of importance to the customer. Service tangibles are the appearance of physical facilities, equipment used, appearance of employees, etc. All of these provide an image to the customers. Their presence do not lead to enhanced satisfaction, but absence no doubt create discontentment.
- b) *Reliability – Deliver on promise:* Researchers have shown that reliability is one of the most important determinants of perceptions of quality of service. Reliability means the ability to perform dependably and accurately i.e., the ability to deliver as promised.

- c) *Responsiveness- Help customer:* Responsiveness means the willingness to respond to customer's desires, complaints, or problems. Customers do not like to wait. They expect prompt services as and when they desire.
- d) *Assurance- Trust and confidence:* Assurance means the ability, skill and knowledge of the employees. Customers feel confident and trust the organizations that have knowledgeable and courteous employees.
- e) *Empathy- Customer is the king:* Empathy is defined as the ability of the employees to create a feeling of caring for the needs of the customers. In essence, empathy is the ability to provide customized services to each customer. It is the feel of being wanted by the organization.

Empathy is the ability of the employees to create a feeling of caring for customers.

Operations Management Issues in Service Organizational Contexts

1. **Service business:** In the management of organizations the primary business requires interaction with the customer to produce the service. These include such familiar services as banks, airlines, hospitals, law firms, retail stores, and restaurants. We can make a further major distinction:
 - i. *Facilities-based services:* When the customer must go to the service facility.
 - ii. *Field-based services:* When production and consumption of the service take place in the customer's environment (e.g., cleaning and home repair services). Technology has allowed for the transfer of many facility-based services to field-based services. Telemarketing brings the shopping center to your TV screen.
2. **Internal services:** The management of services requires supporting the activities of organization. These services include such functions as data processing, accounting, engineering, and maintenance. Their customers are the various departments within organization that require such services. Incidentally, it is not uncommon for an inter-service to start marketing its services outside the parent organizations and become a service business itself. Our emphasis in this chapter is on service businesses, but most of the ideas apply well to internal services.
3. **Contemporary view of service management:** The customer is (or should be) the focal point of all decisions actions of the service organization. This philosophy is captured nicely in the service triangle in figure 6.1.2. Here, the customer is the center of things- the service strategy, the systems, and the people who serve him or her. From this view, the organization exists to serve the customer, and the systems and the people exist to facilitate the process of service.

Customer is the center of things like the service strategy, the systems, and the people who serve him or her.

An Operational Classification of Services

For operations management purposes we distinguish one service system from another in its production function; it is the extent of customer contact in the creation of the service. In the Figure 6.1.2 *Customer* contact refers to the physical presence of the customer in the system, and *creation of the service* refers to the work process involved in providing the service itself.

Extent of contact here may be roughly defined as the percentage of time the customer must be in the system relative to the total time it takes to perform the customer service. Generally speaking, the greater the percentages of contact time between the service system and the customer, the greater the degree of interaction between the two during the production process.

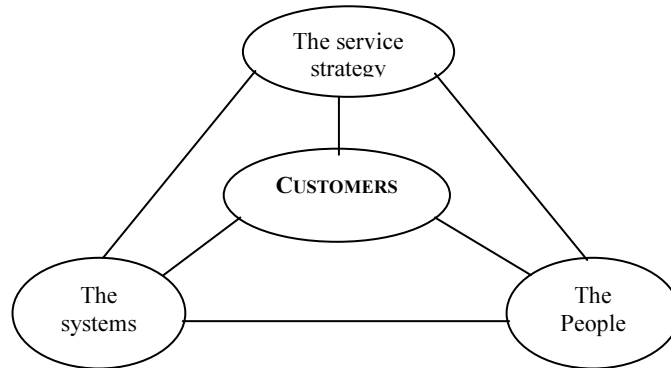


Figure 6.1.2: The Service Triangle

From this conceptualization, it follows that service systems with a *high degree of customer contact* are more difficult to control and more difficult to rationalize than those with a *low degree of customer contact*. In high-contact systems, the customer can affect the time of demand, the exact nature of the service, and the quality, or perceived quality of service since the customer is involved in the process.

Importance of Services

Many forces have led to the growth of service sector. In 1991, the service sector represented 78 percent of total employment of the United States. Almost all the absolute growth in numbers of jobs and the fastest growth rates in job information are in service industries. Service sector is growing in Bangladesh. In 1980, the GDP share of this sector was 38 percent, while in 1998 it was 50 percent. Therefore, service has become an important part of the modern economy. It pervades all economic activities. More broadly, service is important for the following:

- a) **Service based economy:** Delivering quality service is considered an essential strategy for success and survival in today's competitive environment. The global economy is changing. The central features of the old economy were mass production of goods and consumption of those. The modern economy is not only based on production of goods but also production of services. In the last three decades, service sector of the developed economy has expanded tremendously. The number of jobs in service industries has increased to more than 60 percent, whereas it is only 20 percent in the manufacturing sector (non-farm).
- b) **Business Imperative in Manufacturing:** Importance of quality service is also recognized by the manufacturing industries. With frequent improvement of technologies, it is no longer possible to compete through producing physical goods only. Companies need to focus on service to keep up with customer's expectations. The customers not only expect quality goods, but also expect high level of service along with the goods.

Modern economy is not only based on production of goods but also services.

- c) **Professional service needs:** Many service organizations like health care, restaurants, legal services, engineering, etc., have realized the importance of customer focus in delivering their products. Traditionally they have been dominated by operations. But in present day competitive environment, they are forced to listen to the needs and desires of their customers. They seek better ways to understand and segment their customers, to ensure delivery of quality service and to meet growing challenges from increasing number of competitors.
- d) **New technologies:** Because of new information technologies entering the market, the method of doing business is changing fast. Fax machines have replaced telephone and in turn have been replaced by e-mail, mobile phone, etc. E-commerce is now replacing the traditional way of selling. ATM cards, credit cards etc. are changing the attitude of customers as to their ways of shopping. Computers are making it easy to hold masses of data, and encouraging sellers to provide customized services.

Activity: Think of any service product that you like. Then check whether your chosen service product has the same characteristics that this lesson had explained. If there is any deviation discuss that with your tutors.

Many developed countries have realized that the service sector is one of the fastest growing sector of their economy. It is presently contributing more to GDP than the manufacturing sector. To facilitate its expansion, many governments have deregulated their activities, specially in the transportation, finance and the telecommunication sectors. The World Trade Organization (WTO) was created to look after the interest of the service sector players. The WTO facilitates growth of service sector by creating a level field for it in the global market. It has removed artificial barriers among the member countries. Now-a-days more service providers are offering their services in new markets and the trend is increasing.

**Case
Analysis**

Midland Bank's FirstDirect

In October 1989 Midland Bank launched its *FirstDirect* product, which included a full banking service by post, cash points and *telephone*. The target market was primarily busy and confident people in the 20-45 age group, who enjoy using the telephone, rarely visit their bank branch and earn over £15,000 per annum. In April 1991, after 18 months in operation *FirstDirect* was subscribed to by about 100,000 customers. Only about 25 percent of *FirstDirect* customers were already with the Midland, the majority have come by recommendation or/and personal introduction. The banking service is mainly over the telephone and it takes place 24 hours a day, 365 days a year, with about 8 percent of all calls taking place before 8.00 a.m. and a significant proportion of clients telephoning between 8.00 p.m. and midnight. *FirstDirect* is undercutting the competition by offering beneficial interest on credit balances and reduced mortgage rates, as well as free telephone calls for all the dealings with the bank. The long-term success of *FirstDirect* will rest on whether there are a substantial number of customers to cover the relatively high cost of this service. Whilst direct banking is certainly a niche market, it is not clear whether Midland will obtain and retain the 200,000 customers required to break even.

**Case
Analysis**

ATMs- Applications and Strategies

Bank ATMs can increase labor productivity and reduce wage costs as well as improve the efficiency and convenience of the payment system for the financial services organization. For customers, ATMs provide an opportunity for 24-hour banking at bank and non-bank locations (for example malls, grocery stores, university campuses) and the availability of services on Sunday and public holidays. Some studies show that machine availability and the number of machine functions, along with the time period over which a machine is in place, are important influences on user acceptance. A traditional strategy to increase the profit from ATMs is to increase card base, activity and usage rates. In the UK the current overall consumer market penetration of ATM cards stands at about 50 percent of all households and the activity rates are now on average slightly over 50 percent. Many promotional routes may be open for boosting activity rates. Possibilities include demonstrations (utilized by 14 percent top banks offering ATM services), sweepstake/games/prizes (16 percent), imposed sales efforts/incentive pricing (21 percent), targeted directed mail (17 percent), mass media advertising (14 percent) and allowing all types of discounts with ATM access (17 percent).

However a more long-term and systematic approach would be to remove barriers to increased penetration and to target the right segment for ATM usage. In addition, effort should be put into creating need by promoting convenience and using incentive, overcoming dislike of ATMs by removing the fear of and discomfort with technology in general, and increasing card distribution among potential users. Furthermore, promoting non-withdrawal transactions to increase ATM usage is also very important and a combination of educational and promotional devices could be used to remove the psychological objections to making a deposit in an ATM.

Discussion questions

1. *Service is idiosyncratic*-explain.
2. What is the contemporary view of service management?
3. Discuss the components of service triangle.
4. Explain the natures of services by giving practical examples.
5. Point out the seven generalizations of services.
6. Explain why do we need to study queue theory.
7. Define service. Why is service important in today's economy?
8. What are the difference between service and manufacturing organization?

Lesson Two: Service Design

Lesson Objectives

After completing this lesson you will be able to:

- Explain the how to define the service organization
- List the different characteristics of a well designed service system
- Discuss the various stages of service design
- Justify the related issues for service delivery system

Designing Service Organizations

In designing service organizations, one distinctive characteristic of services must be remembered- we cannot inventory services. In services we must (with a few exceptions) meet demand as it arises. Consequently, in services, *capacity* becomes a dominant issue. Consider many service situations you find yourself in- for example, eating in a restaurant. Generally speaking, if the restaurant is full, you will decide to go someplace else. So an important design parameter in services is *What capacity should we aim for?* Too much capacity generates excessive costs. Insufficient capacity leads to lost customers. This is one reason why we have discount airfares, hotel specials on weekends, and so on.

Too much capacity generates excessive costs and insufficient capacity leads to lost customers.

Remember the Differences Between Product and Service Designing

Several major factors distinguish service design and development from typical manufactured product development.

- The process and the product must be developed simultaneously; indeed, in services the process is the product.
- Although patents and copyrights can protect equipment and software that support a service, a service operation itself lacks the legal protection commonly available to goods production.
- The service package, rather than a definable good, constitutes the major output of the development process.
- In many organizations ‘certification of services’ are often necessary part of employee selection before they become part of the service organization. In particular, in Professional Service Organizations (PSOs) such as law firms and hospitals, prior certification is necessary for hiring.
- Many service organizations can change their service offerings virtually overnight. Routine Service Organizations (RSOs) such as barbershops, retail stores, and restaurants have this flexibility.

Three Contrasting Service Designs Approach

1. *The Production Line Approach:* The production line approach pioneered by McDonald’s refers to more than just the steps required in assembling a Big Mac. As Theodore Levitt notes, it is treating the delivery of fast food as a manufacturing process rather than a service process. The value of this philosophy is that it overcomes many problems inherent in the concept of service itself. That is, service implies subordination or subjugation of the server to the served; manufacturing, on the other hand, avoids this connotation because it focuses on things rather than people.
2. *The Self Service Approach:* C. H. Lovelock and R. F. Young propose having the customer take a greater role in production of the service can enhance the service process. Automatic teller machines, self-service gas stations, and in-

Many customers like self-service because it puts them in control.

room coffee-making equipment in motels etc are approaches that shift the service to the consumer. Many customers like self-service because it puts them in control.

3. *The Personal Attention Approach:* An interesting contrast in the way personal attention is provided can be seen in Nordstrom Department Stores and the Ritz-Canton Hotel Company. At Nordstrom, a rather loose, unstructured process relies on developing a relationship between the individual salesperson and the customer. At the Ritz-Carlton, the process is virtually scripted, and the information system rather than the employee keeps track of the guest's (customer's) personal preferences.

Activity: To design any new service do you think you need to consider all the three services design approach together? Why or why not? Discuss.

Seven Characteristics of a Well Designed Service System

1. Each element of the service system is consistent with the operating focus of the firm. For example, when the focus is on speed of delivery, each step in the process should help to foster speed.
2. It is user-friendly. This means that the customer can interact with it easily that is, it has good signage, understandable forms, logical steps in the process, and service workers available to answer questions.
3. It is robust. That is, it can cope effectively with variations in demand and resource availability. For example, if the computer goes down, effective backup systems are in place to permit service to continue.
4. It is structured so that consistent performance by its people and systems is easily maintained. This means the tasks required of the workers are doable, and the supporting technologies are truly supportive and reliable.
5. It provides effective links between the back office and the front office so that nothing falls between the cracks. In football parlance, there should be “no fumbled handoffs.”
6. It manages the evidence of service quality in such a way that customers see the value of the service provided. Many services do a great job behind the scenes but fail to make this visible to the customer. This is particularly true where a service improvement is made. Unless customers are made aware of the improvement through explicit communication about it, the improved performance is unlikely to gain maximum impact.
7. It is cost-effective. There is minimum waste of time and resources in delivering the service. Even if the service outcome is satisfactory, a service company that appears inefficient often puts off customers.

New Service Development Process

Due to inherent characteristics of services, the development process of new services requires unique and complex adaptations. An underlying assumption of new service development process models is that new product ideas can be dropped at any stage if they do not satisfy the criteria for success at that particular stage. Figure 6.2.1 shows the checkpoints that precede critical stages of the development process. The checkpoints specify requirements that new service must meet before it can proceed to the next stage of development. (So

Service development ideas can be dropped at any stage of the process if they do not satisfy the criteria for success at that particular stage.

organizations are finding that, to speed up the process of new service development, some steps can be worked on simultaneously, and in some instances a step may even be skipped. In all cases, however, the critical tests that allow the service to pass through each checkpoint must be passed.)

One way to formulate a new service strategy is to identify the growth opportunities.

1. **Business strategy development:** An organization has an overall strategic vision and mission. Clearly a first step in new service development is to review that vision and mission. The new services strategy and specific new service ideas must fit within the larger strategic picture of organization.
2. **New service strategy development:** The types of new services that will be appropriate will depend on the organization’s goals, vision, capabilities, and growth plans. By defining a new service strategy (possibly in terms of markets, types of services, time horizon for development, profit criteria, or other relevant factors), the organization will be in a better position to begin generating specific ideas. One way to begin formulating a new service strategy is to use the framework shown in Table 6.2.1 for identifying growth opportunities. The framework allows an organization to identify possible directions for growth and can be helpful as a catalyst for creative ideas. The matrix suggests that companies can develop a growth strategy around current customers or for new customers, and can focus on current offerings or new service offerings.

Table 6.2.1: New service strategy matrix for identifying opportunities

Offerings	Markets	
	Current Customers	New Customers
Existing Services	Share Building	Market Development
New Services	Service Development	Diversification

3. **Idea generation:** The ideas generated at this phase can be passed through the new service strategy screen described in the preceding step. Many methods and avenues are available for searching out new service ideas. Formal brainstorming, solicitation of ideas from employees and customers, and learning about competitors’ offerings are some of the most common approaches. In service businesses, contact personnel, who actually deliver the services and interact directly with consumers, can be particularly good sources of ideas for complementary services to those already in the marketplace and for improvement of current offerings.
4. **Service concept development and evaluation:** Once an idea surfaces that is regarded as a good fit with both the basic business and the new service strategies, it is ready for initial development. The inherent characteristics of services, particularly intangibility and simultaneous production and consumption, place complex demands on this phase of the process. Drawing pictures and describing an intangible service in concrete terms are difficult. It is therefore important that agreement be reached at this stage on exactly what the concept is. By involving multiple parties in sharpening the concept definition, it often becomes apparent that individual views of the concept are not the same. For example, in describing the design and development of a new discount brokerage service, initially the bank described the concept as a way ‘to buy and sell stocks for customers at low prices. Through the initial concept development phase it became clear that not everyone in the

By involving multiple parties in sharpening the concept definition, it often becomes apparent that individual views of the concept are not the same.

organization had the same idea about how this description would translate into an actual service, and that there were a variety of ways the concept could be developed. Only through multiple iterations of the service, and the raising of hundreds of issues, large and small-was an agreement finally reached on the discount brokerage concept.

5. After clear definition of the concept it is important to produce a description of the service that represents its specific features and characteristics and then to determine initial customer and employee responses to the concept. The service design document would describe the problem addressed by the service, discuss the reasons for offering the new service, itemize the service process and its benefits, and provide a rationale for purchasing the service. The roles of customers and employees in the delivery process would also be described. The new service concept would then be evaluated by asking employees and customers whether they understand the idea of the proposed service, whether they are favorable to the concept, and whether they feel it satisfies an unmet need.

After clear definition of the concept it is important to produce a description of the service.

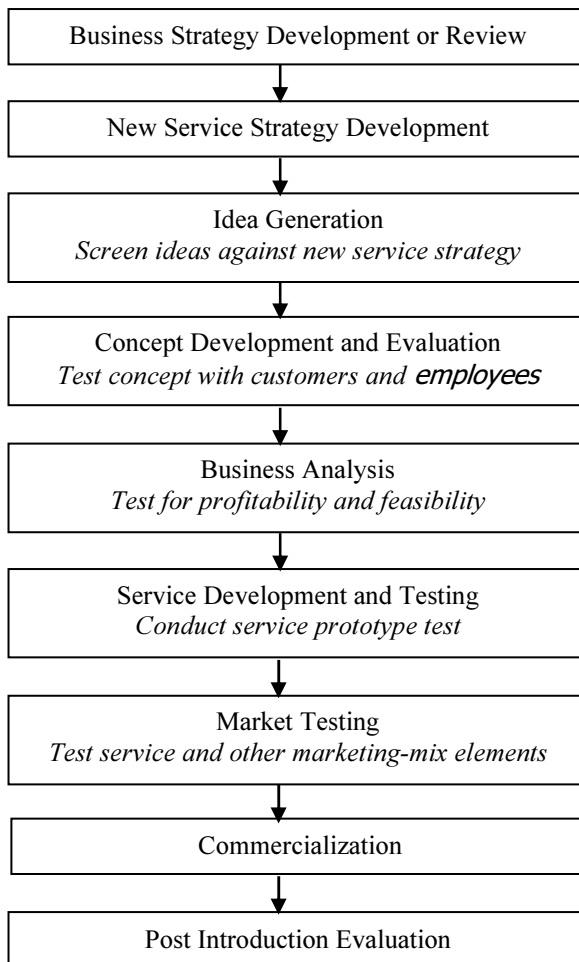


Figure 6.2.1: New Service Development process
(Note: The checkpoints are in Italics)

6. **Business analysis:** Assuming customers and employees favorably evaluate the service concept at the concept development stage, the next step is to determine its feasibility and potential profit implications. Demand analysis,

revenue projections, cost analyses, and operational feasibility will be assessed at this stage. Because the development of service concepts is so closely tied to the operational system of the organization, this stage will involve preliminary assumptions about the costs of hiring and training personnel, delivery system enhancements, facility changes, and any other projected operations costs. The organization will pass the results of the business analysis through its profitability and feasibility screen to determine whether the new service idea meets the minimum requirements.

Service development and testing involves construction of product prototypes & testing for consumer acceptance.

7. **Service development and testing:** In the development of new tangible products, this stage involves construction of product prototypes and testing for consumer acceptance. Again, because services are intangible and largely produced and consumed simultaneously, this step is difficult. To address the challenge, this stage of service development should involve all who have a stake in the new service: customers and contact employees as well as functional representatives from marketing, operations, and human resources. During this phase, the concept is refined to the point where a detailed service blueprint representing the implementation plan for the service can be produced. The blueprint is likely to evolve over a series of iterations on the basis of input from all of the parties listed. For example, when a large state hospital in U.S. was planning a new computer-based information service for doctors throughout the state, it involved many groups in the service development and evaluation stage, including medical researchers, computer programmers and operators, librarians, telecommunications experts, and record clerks as well as the physician customers.

The new service might be offered to employees of the organization and their families for a time to assess their responses

8. **Market testing:** There are alternative ways of testing the response to marketing-mix variables, however. The new service might be offered to employees of the organization and their families for a time to assess their responses to variations in the marketing mix. Or the organization might decide to test variations in pricing and promotion in less realistic contexts by presenting customers with hypothetical mixes and getting their responses in terms of intentions to try the service under varying circumstances. It is also extremely important at this stage in the development process to pilot run the service to be sure that the operational details are functioning smoothly. As one noted service expert says, 'There is simply no substitute for a proper rehearsal' when introducing a new service.' In the case of the discount brokerage service described earlier, they offered employees a special price for one month in a pilot test. The offer was marketed internally, and it allowed the bank to observe the service process in action before it was actually introduced to the external market.

Commercialization is the process of taking service in live and introduced it in marketplace.

9. **Commercialization:** At this stage in the process, the service goes live and is introduced to the marketplace. This stage has two primary objectives. The first is to build and maintain acceptance of the new service among large numbers of service delivery personnel who will be responsible day to day for service quality. This task is made easier if acceptance has been built in by involving key groups in the design and development process all along. The second objective is to carry out monitoring of all aspects of the service during introduction and through the complete service cycle. If the customer needs six months to experience the entire service, then careful monitoring must be maintained through at least six months. Every detail of the service should be assessed—phone calls, face-to-face transactions, billing,

complaints, and delivery problems. Operating efficiency and costs should also be tracked.

10. **Post-introduction evaluation:** At this point, the information gathered during commercialization of the service can be reviewed and changes be made to the delivery process, staffing, or marketing-mix variables on the basis of actual market response to the offering.

The Service Delivery System Related Issues

Integrating marketing & operations to achieve competitive advantage

Achieving competitive advantage in services requires integration of service marketing with delivery to meet or exceed customer expectations. This holds true no matter which competitive dimensions are emphasized. Companies that do extremely well (or extremely poorly) in this process create legends or create nightmares. Marketing typically has responsibility for communicating the promise to the customer and thereby creating customer expectations about service outcomes. An operation is responsible for the actions in executing the promise and managing the customer experience. The feedback loop indicates that if outcomes are not satisfactory or do not create service advantage, management may alter either the service marketing strategy or the delivery system. The need to monitor and control the execution phase and have a recovery plan to diffuse negative reactions before the customer leave the system is also indicated.

Monitoring and controlling involve the standard managerial actions of reassigning workers to deal with short-run demand variations (e.g., Lucky Supermarkets opening another checkout stand when there are more than three people in line); checking customers and employees as to how things are going; and, for many services, simply being available to customers (customers like the idea that they can talk to the manager and few people want to talk to the assistant manager). *Recovery planning* involves training frontline workers to respond to such situation overbooking, lost luggage, or a bad meal. A company that can't achieve competitive advantage in its service delivery must at least achieve parity with its competitors. One approach to measuring the economic value of customer satisfaction is to survey customers. Ask them to rate each of a list of service and quality dimension items on two scales such as importance and satisfaction. The point is to focus your attention on factors that are most important to your customers. Especially, focus on factors where their satisfaction rating is below their importance rating.

Company that can't achieve competitive advantage in its service delivery must at least achieve parity with its competitors.

Activity: If you want to open up a fast-food chain shop with home service facilities then what service delivery related issues you need to consider for the success of your home service and why? Assume that you are doing business in a very competitive environment.

Strategic Uses of the Matrix

The matrix in Table 6.2.2 has both operational and strategic uses. Their operational uses are reflected in their identification of worker requirements, focus of operations, and innovations previously discussed. The strategic uses of the matrix include,

- Enabling systematic integration of operations and marketing strategy. Trade-off becomes more clear-cut, and, more important, at least some of

the major design variables are crystallized for analysis purposes. For example, the matrix indicates that it would make little sense relative to sales for a service firm to invest in high-skilled workers if it plans to operate using tight specs.

- Clarifying exactly which combination of service delivery the firm is in fact providing. As the company incorporates the delivery options listed on the diagonal, it is becoming diversified in its production process.

Table 6.2.2: Characteristics of workers, operations, and innovations relative to the degree of customer/service contact

	Degree of customer/server contact					
	←					→
	Low					High
Worker requirements	Clerical Skills	Helping Skills	Verbal skills	Procedural Skills	Trade Skills	Diagnostic skills
Focus of operations	Paper Handling	Demand Management	Scripting calls	Flow Control	Capacity management	Client mix
Technological innovations	Office Automation	Routing Methods	Computer databases	Electronic aids	Self-serve	Client/work er teams

- Permitting comparison with other firms, as to how the other firms deliver specific services. This helps pinpoint a firm’s competitive advantage.
- Indicating evolutionary or life cycle changes that might be in order as the firm grows. Unlike the product-process matrix for manufacturing, however, where natural growth moves in one direction (from the job shop to assembly line as volume increases), evolution of service delivery can move in either direction along the diagonal as a function of a sales-efficiency trade-off.

Problems With New Technology: New Service Ideas

There are no reliable estimates of the extent of computer-related theft, but some reckon that the USA as a whole loses \$5 billion a year. All types of institution, especially banks, tend not to advertise their losses, fearing a further loss of business confidence in their systems. Recent surveys by management consultants suggest that only one in three financial services firms have broad support for security policies and 25 percent have no security policy at all. Almost 30 percent do not carry out a security review to spot potential risk.

**Case
Analysis**

There are numerous products and services to help combat computer crime. They include assessment of control systems for all types of computer and encryption software to scramble data, whether held on file or sent down a telecommunications line, and the use of passwords and physical keys. Many are now turning to smart cards, which effectively act as a service key and use a password or number. In the future the use of bimetric security devices may become more common. These are systems that recognize things such as voices, fingerprints or eye pattern. However at present they are costly to install and maintain.

The probable inevitable advent of home-based EFTS has dramatic implications for the future shape of the financial services industry. If cash becomes unnecessary or, in the extreme case, if all banking and other financial transactions can be performed from a terminal in the home, the need for an extensive network of branches and agencies will vanish. Such a development would eliminate the present competitive advantage of the large financial services organizations and might also eliminate the opportunity to cross-sell services to core account holders via the branch system.

Case questions:

1. “Janus is the two-faced god of ancient Rome.”- In this case one face is turned towards core account holders, the other towards the remaining market. Discuss.

Discussion questions

1. Distinguish between product designing and service designing.
2. Explain the self-service design approach.
3. What are the seven characteristics of a well designed service system?
4. Discuss the idea generation stage of a new service development process.
5. Define service system design matrix.

Lesson Three: Service Blueprinting, Service Failsafing, Factors for Service Technologies

Lesson Objectives

After completing this lesson you will be able to:

- Explain the concept of blueprinting
- Discuss the nature of service failsafing
- Identify the various success factors for service technologies

Service Blueprinting

The standard tool for service process design is the flowchart. In 1984, Lynn Shostack added the concept of the *line of visibility* and emphasized the identification of potential fail points in her version of the flowchart, called a service *blueprint*. Current practice in some companies is to have blueprints available on computers for senior managers so that whenever problems arise in any portion of a service process they can make more informed decisions about how to resolve them. The steps involved in developing a blueprint for a simple shoeshine process, including a profitability analysis, are as follows:

1. *Identify processes:* The first step in creating such a blueprint is mapping the processes that constitute the service. Figure 6.3.1 maps a shoeshine parlor. As the service is simple and clear-cut, the map is straightforward. It might be useful to specify how the proprietor will perform the step called buff.

The first step of a blueprint is mapping the processes that constitute the service.

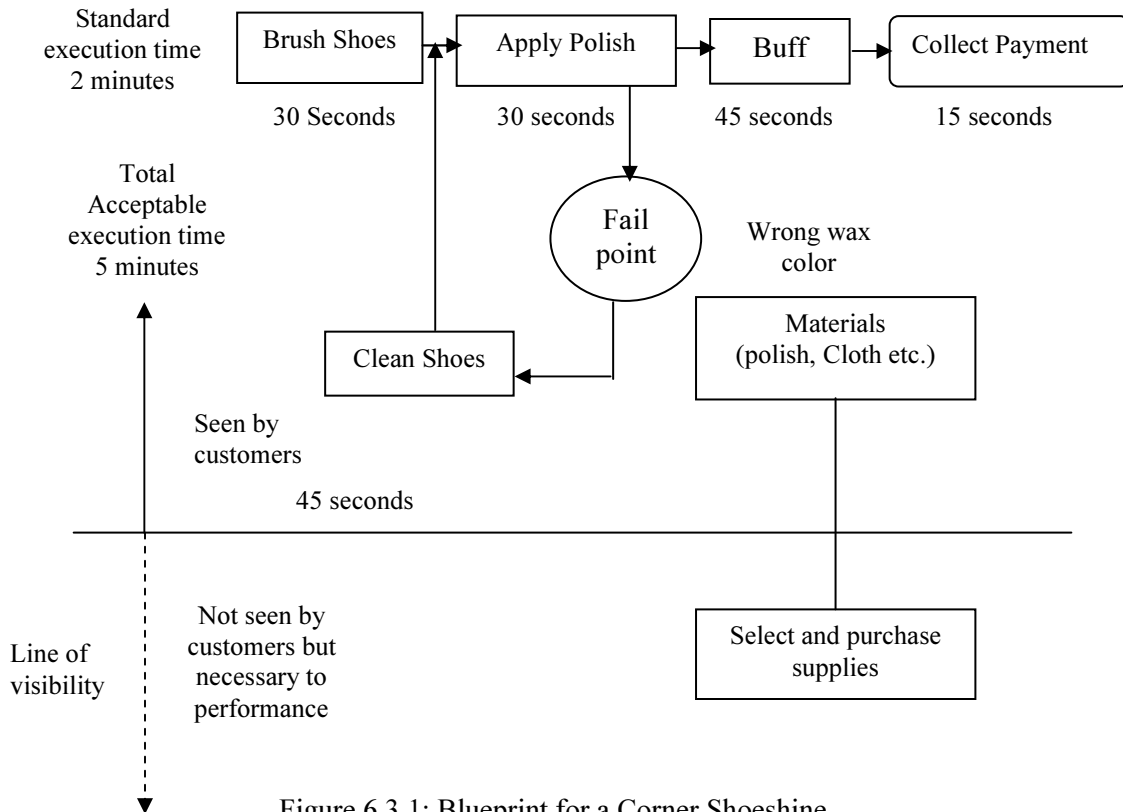


Figure 6.3.1: Blueprint for a Corner Shoeshine

2. *Isolate fail points:* Having diagrammed the processes involved, the designer can now see where the system might go awry. The shoeshiner may pick up and apply the wrong color wax. So the designer must build in a subprocess to correct this possible error. The identification of fail points and the design of fail-safe processes are critical. The consequences of service failures can be greatly reduced by analyzing fail points 11 the design stage.
3. *Establish a time frame:* Since all services depend on time, which is usually the major cost determinant, the designer should establish a standard execution time.
4. *Analyze profitability:* The customer can spend the three minutes between standard and acceptable execution time at the corner parlor waiting in line or during service, if an error occurs or if the shoeshiner does certain things too slowly. Whatever its source, a delay can affect profits dramatically. Figure 6.3.1 quantifies the cost of delay; after four minutes the proprietor loses money. A service designer must establish a time-of-service execution standard to assure a profitable business. In the shoeshine example, the standard execution time is two minutes. Research shows that customers would tolerate up to five minutes of performance before lowering assessment of quality. Acceptable execution time for a shoeshine is then five minutes.

Waiting in line ie, if a delay occur it can affect profits dramatically.

Activity: Develop a blueprint for the fast-food service in the busy commercial area of the capital city.

Service Fail-Safing Using Poka-Yokes

To provide with guidance for how to make the process conform to that design Service Fail Safing measures like poka-yokes—has been developed. The procedures block the inevitable mistake from becoming a service defect. Poka-yokes (roughly translated from Japanese as *avoid mistakes*) are common in factories and consist of such things as fixtures to ensure that parts are attached in the right way etc. There are many applications of poka-yokes to services as well. These can be classified into warning methods and physical or visual contact methods, and by what we call the Three ‘T’s—

- **T-** Task to be done (Was the car fixed right?),
- **T-** Treatment accorded to the customer (Was the service manager courteous?), and
- **T-** Tangible or environmental features of the service facility (Was the waiting area clean and comfortable?).

Finally (unlike in manufacturing), service poka-yokes often must be applied to fail-safing the actions of the customer as well as the producer (i.e., the service worker). *Poka-yoke* examples include indented trays used by surgeons to ensure that no instruments are left in the patient; chains to configure waiting lines; take-a-number systems; turnstiles; beepers on ATMs to warn people to take their card out of the machine; beepers at restaurants to make sure customers do not miss their table call; mirrors on phones to ensure a “smiling voice”; pictures of what “a clean room” looks like for kindergarten children. On the lighter note look at The Far Side cartoon as a customer resolution poka-yoke (not recommended).

Success Factors for Service Technologies

1. *Customer contact*: Customer contact refers to the customer's presence in creating the service and it occurs in two ways. First is the customer's involvement is designing or customizing the service. In buying a new apartment from Eastern Housing Ltd., for example, the customer can be intensively active in the design, working closely with the architect. A second type of contact is the customer's presence in and during the creation of the service. Hair styling, for example, is a high contact process.
2. *Labor intensiveness*: Some service conversion process, such as nursing and teaching are labor intensive, whereas others, including the 24 hour automatic teller machines are capital incentives. This different process obviously present contrasting operating problems.
3. *Service process matrix*: Service process matrix is done by combining the two dimensions- customers contract and labor intensive (Table 6.3.1). Four distinctive types of service process are evident. Many service organizations fit clearly into each cell of the matrix, and they have different operations, challenges and problems

Customer contact refers to the customer's presence in creating a service and it can occur in two ways: low and high contact.

Table 6.3.1: Service Process Matrix

Customer contact technology	Low Customer contact	High Customer contact
Capital intensive	Quasi-manufacturing Postal services, automated warehousing	Customer shop services Medical treatment travel services
Labor intensive	Mass services Teaching, live entertainment, cafeteria	Professional services, Medical diagnosis, legal counseling, tutoring
Flexibility	(Rigid process technology)	(Flexible process technology)

Quasi manufacturing (For example, Continental courier, Federal Express), with low labor intensity and low customer contact, offers rigidly standardized services, is very concerned with developing reliable delivery schedules, and makes major capital equipment decisions in a bureaucratized setting.

Mass services (for example, the city school system), while still a system offering standardized services, are much more involved with training, development, and scheduling of the human resources so critical for successful service delivery in this labor- intensive conversion process. Custom- shop services (for example, a hospital) must be capable of providing customized patient services with a professional staff in a relatively capital-intensive conversion technology that emphasizes cost containment and large capital investment decision.

The *hallmark of professional services* (for example, tutoring) is customized services through intensive interaction between the customer and professional personnel. Since the professional is governed as much or more by professional norms than by organizational rules, superior-subordinate relationships are looser, and the professional's skills in relating to the customer are essential.

Hallmark of professional services is customized services through intensive interaction between customer and professional personnel.

In shifting from products to services, we found that although the design of services entails the same basic steps as product design, the details of executing those steps are quite different. The basis for the differences was shown to stem from the nature of service process technologies, which encompass different degrees of customer contact and labor intensiveness. The implications of these differences for operation management are summarized in a service process matrix.

Activity: Discuss without the above factors of success whether any service provider could be successful or not with his/her service products.

System Description Exercise

The beginning step in studying a productive system is to develop a description of that system. Once a system is described, we can better determine why the system works well or poorly and recommend production-related improvements. Since we are all familiar with fast-food restaurants, try your hand at describing the production system employed at, say, Pizza Palace. In doing so, answer the following questions:

- a. What are the important aspects of the service package?
- b. Which skills and attitudes do the service personnel need?
- c. How can customer demand be altered?
- d. Provide a rough-cut blueprint of the delivery system. (It is not necessary to provide execution times. Just diagram the basic flow through the system.) Critique the blueprint.
- e. Are there any unnecessary steps or can fail points be eliminated?
- f. Can the customer/provider interface be changed to include more technology? More self-serve?
- g. Which measures are being used to evaluate and measure the service? Which could be used?

Premium Service Banking in Dhaka

Standard Chartered ANZ bank introduced Premium Service Banking, a new concept in Corporate Customer Service. Premium Service Banking offers you a menu of service improvements which can be tailored to your individual business needs. These service enhancements collectively allow you to manage your business finances and cash resources more effectively and conveniently. The following are the key features of *Premium Service Banking*.

Premium Service Banking Courier: The Bank will provide you with the convenience and security of a daily courier pick-up and delivery service at your premises for your routine banking transactions. The Service is available for check deposits, trade finance documents, payment instructions, statements and checkbook requests. We offer you the choice of courier service.

Premium Service Banking Internet Reporting: Premium Service Banking Internet Reporting can significantly enhance the Bank's service to you and will play a central role in the future of your business. Our corporate and Institutional banking web site offers you a number of value added features, including comprehensive account information and product information to help you do business better. To ensure that your personal data cannot be accessed by anyone but you, all the reporting information have been secured using Verisign and Secure Sockets Layer (SSL) - which are the industry-standard security solutions for communications and transactions over the Internet.

Premium Service Banking Hotline (a single point of contact): is an easy to memorize telephone number specifically reserved for Corporate customers of Premium Service Banking and backed by our highly trained staff. This facility provides you with a single window into the bank for all your transactional banking enquiries. Premium Service Banking customers will have access by fax or by phone to an exclusive Corporate Service Unit (CSU) in the Bank's Office at Dhaka, Bangladesh. Dedicated personnel are available to handle a full range of transactional banking enquiries relating to balances, account statements, check payment status and other transactions.

Premium Service Banking Inward Remittance Information Service: For the first time, your Bank will pro-actively provide you with a daily fax report first thing in the morning (or more frequently) detailing all Inward SWIFT payment messages received by the Bank for your accounts with us. Additionally, these messages will provide you with complete remittance details.

Premium Service Banking Express Payments: In case you miss our daily courier and/or urgently need to send a telex or draft, we offer you an alternative; initiate your request for a payment via your fax machine. What is more, for Premium Service Banking customers, the Bank commits to initiating remittance transactions for telex/SWIFT transfer instructions received by 1:00 p.m.; for drafts, the cut off time for Premium Service Banking customers has been extended to 3:30 p.m.; a convenient extension to our normal cut-off times.

Premium Service Banking Foreign Exchange & Money Market Information: The Bank will arrange to provide information on Foreign Exchange and Money Market rates on a daily basis by fax. Our Daily Treasury News provides information on Foreign Exchange rates, key stock, bond, and interest rate indices,

highlights from international financial markets and information on technical chart points. In addition, the Bank will automatically provide Premium Service Banking customers with a clear and concise market commentary, in the form of a Weekly Treasury Newsletter, which covers the major financial events of the week and provides information on movements in major currencies, stock indices, commodities and USD Money Market rates.

Case questions:

1. Why should a manager of a bank home office be evaluated differently than a manager of a bank branch. Discuss.
2. You, as a valued customer of the bank evaluate the service quality of the *Premium Service Banking* and comment what better services you will look from the bank. Justify the reasons.

Discussion questions

1. What is service blue print? Explain the steps of service blueprinting.
2. What do you mean by mass service and service process matrix.
3. Could a service firm use a production line approach or self-serve design and still keep a high customer focus (personal attention)? Explain and support your answer with examples.
4. Identify the high contract and low contract operations of the services like, i) An airline; ii) An accounting office and iii) An automobile agency.
5. Where would you place a campus food vending machine and a bar's automatic mixed drink machine on the service system design matrix?
6. Can a manufacturer have a service guarantee in addition to a product guarantee?
7. Suppose you were the manager of a restaurant and you were told honestly that a couple eating dinner had just seen a mouse. What would you say to them—how would you recover from this service crisis?
8. Place the following functions of a department store on the service-system design matrix: mail order (i.e., catalog), phone order, hardware, stationery, apparel, cosmetics, customer service (i.e., complaints).