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SERVICE MANAGEMENT

An Integrated Approach to Supply Chain Management and Operations

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It is clear, then, that for success a service organization must start with a well-designed service. However, it will not end there because service design is not a one-time undertaking. An organization must create new services or improve existing ones because customers' needs are changing rapidly and new needs are emerging. Also, changes in consumers' tastes and lifestyles make some of the existing services obsolete or inadequate in meeting customers' needs. Consequently, an organization's vitality and competitiveness often depends on how well it discovers the shifts in consumers' needs and the emergence of new ones and meets them with new services or with improvements in existing services.

In addition to these reasons, other factors exist that motivate organizations to design and develop new services. These reasons will be discussed a little later in this chapter, but first an important note about what we mean by the "design and development" of services. Service design includes the development of a service concept and the design of a system through which it is delivered. Both of these are the products of an evolutionary process; that is, they evolve and change as the design progresses. When we refer to service design and development in this book, we refer to both the service concept and the delivery system because they are inseparable. We now turn our attention to another important issue: what is meant by "new" in services, or how "new" they may be.

Categories of Product Innovation

Everyone is accustomed to hearing advertisers claim that their products are "new," "all new," or "new and improved." Naturally, having some familiarity with the product, many consumers are unimpressed by these claims, or worse, confused by them because it is not at all clear what is "new" in the advertised product. Because the topic of this chapter is the design of "new" or "improved" services, it may be appropriate to shed some light on what the advertisers may mean when they make such claims or what alternatives exist for an organization contemplating designing new services.[1]

1. **Major innovations**—These are "new to the world" services for which markets are yet undefined and undimensioned. They involve a high degree of uncertainty and risk. Federal Express's overnight delivery of small packages was an example of this type of innovation.
2. **Start-up businesses**—Some new services may provide new and innovative solutions to generic needs of customers that have been served by existing services. These new services may be in the form of bundling existing services in a new package, such as health maintenance organizations that bring together general practitioners and specialists, as well as labs, X-ray facilities, and sometimes pharmacies under one roof for one-stop visit for patients.
3. **New products for the currently served market**—This category includes new services offered to the existing customers that were not previously available from the service organization. Examples include banks that introduce their Visa or MasterCard or offer

frequent flier programs for airlines with their cards, mutual funds, money-market funds, or insurance services, or museums that open gift and souvenir shops and restaurants for their patrons.

4. **Product line extensions**—Additions to the existing line-up of services that enhance the current offerings are called product line extensions. Examples include call waiting, caller ID, redial services offered in addition to regular phone service from your phone company; new routes for an airline, or new courses offered by a university.

5. **Product improvements**—Product improvements consist of changing certain features of a service to give customers better quality or increased value. These may be in the form of performing an existing service faster or may be in the form of enrichments or embellishments, that is, addition of "bells and whistles." For example, many ATMs print account balances after each deposit or withdrawal. Another example is a free car wash some automobile dealers provide with any service they perform, including oil change.

6. **Style changes**—These are the most modest but often highly visible forms of service improvements, and they include renovating and refurbishing the building where service is provided, new uniforms for employees, a new logo, and so forth.

This discussion of service design and development in this chapter assumes that the new service falls in one of the first three categories. However, what is offered in this chapter can easily be adopted for other categories.

Factors That Motivate the Design and Development of New Services

Chapter 4, "Globalization of Services," pointed out some global trends that lead not only to a general increase in demand for existing services, but also to an increase in demand for new services in many countries of the world. Earlier in this section it was stated that the main reason for the design and development of new services is to meet new and changing needs of consumers. There are other reasons that motivate organizations to design and develop new services. Some of the most important factors are reviewed in the following paragraphs.[2]

Financial goals—Management in many service organizations is under constant pressure to achieve financial goals of profit, market share, or revenue. These goals may be achieved by improving service quality and customer satisfaction with the existing services. Another way, however, is to introduce new services. As just noted, several degrees of "newness" exist for services. However, only the first three are most likely to lead to increases in market share and revenue, and help the organization achieve its financial goals.

Competitive actions—One of the strongest motivations for developing new services emerges when a competitor introduces a new service. Standing still and doing nothing usually leads to an erosion of market share and profits. Consequently, the introduction of a new service promotes similar actions from competing organizations. For example, when Merrill Lynch introduced the

Cash Management Account, which combined brokerage, debit card, and bank checking services in a single package, its competitors had to develop and offer similar services.

Globalization—The increase in global trade and foreign direct investment, establishment of European Union, and the collapse of the Soviet Union created new markets and opened up many opportunities for service firms. These developments created a need for the design and development of new services or modification of existing ones to meet the needs of different countries and cultures.

Technology—With its new products and capabilities, technology creates new needs that require new services. Chapter 7, "Technology and Its Impact on Services and Their Management," discusses how new services are motivated by technological advances. We now take an organized look at some possible ways technology may be responsible for the creation of new services or advances in existing services.

1. **New consumer goods**—When introduced, new consumer goods, such as video cassette recorders (VCRs), DVD or Blu-ray disc players, and personal computers created a need for related services, such as video rentals and services for repairing these devices. More recent products, such as portable music players (for example, the iPod) led to the creation of music downloading services; introduction of digital readers, such as Amazon.com's Kindle, or Barnes & Noble's Nook, brought with them the digital book market; and finally, tablets, such as Apple's iPad, led to the creation of services including hundreds of thousands of apps, downloading and reading newspapers and magazines on tablets, just to mention a few.
2. **New equipment**—Advances in engineering technology helped manufacturers and service organizations introduce new equipment or implement many improvements in existing equipment. These developments, in turn, led to faster delivery of existing services as well as the introduction of new services. For example, faster computers increased data storage and computation speed for all sorts of data processing and made the development of new and complex software possible; invention of automatic teller machines (ATMs) made some banking services available 24 hours a day.
3. **Electronic networks**—Electronic networks, such as the Internet and World Wide Web; electronic data banks, such as statistical, economic, and demographic information provided by the Federal Government and private companies; and online information systems, such as Wikipedia, are among the most important technological developments of the recent past that made the creation and delivery of many new services possible.

Regulation/deregulation—Several important industries in the United States have been deregulated during the last three decades of the twentieth century, including airlines, trucking, telecommunications, and banking and financial services. These deregulations allowed many companies to enter into markets that had not been open to them previously and offer new services or offer consumers innovative bundling of existing services. An example is Merrill Lynch's Cash

Management Account mentioned earlier. Although some industries are being deregulated, new regulations are created such as environmental protection and consumer safety regulations. Such regulations usually create a need for improvements in consumer goods and manufacturing equipment, or new ones. They also create a need for new services such as legal, engineering, and consulting services specialized in environmental protection and safety issues.

Elimination of professional association restrictions—Paralleling deregulation of some important industries by the government, professional associations also relaxed some of their restrictions on their members' practices. For example, codes of ethics for legal, medical, accounting, and architectural professionals have been changed to allow them to advertise. Lifting of such restrictions usually leads to the development of new services and innovative delivery systems such as health maintenance organizations, franchise chains of small business accounting services, and legal clinics in shopping malls.

Growth of franchising—A franchise is a type of business in which a person (franchisee) receives a license to produce and/or sell a well-known good or service in return for an initial fee and a percentage of gross receipts to be paid to the grantor of franchise (franchisor). Some well-known franchises include McDonald's, H&R Block Tax Services, Mail Boxes, Inc., Howard Johnson hotels, and automobile dealerships. This system makes it possible for the franchisor to focus on and spend money for formal research in service innovations, product line extensions, product enhancement, and development of new delivery systems.

Balancing supply and demand—Many service organizations have limited capacities but face fluctuating demand for their services. When the demand exceeds the capacity of an organization, either customers are lost or their satisfaction level will be lower because of excessive waiting. However, when the demand falls short of supply, expensive equipment and personnel stand idle. Manufacturers can manage this problem by building inventories when the demand falls short of supply and use inventories when it exceeds supply. However, perishability of most services eliminates this practice as an alternative for service organizations. A plausible alternative is offering services that are countercyclical to the existing portfolio of services. For example, a ski resort may offer nature exploration vacations in summer months when there is no skiing. In other words, a service organization facing fluctuating demand can try developing new services that will have a high demand when the demand for the existing services is low and vice versa.

8.3 Designing Quality and Value

Humans have been designing and making tools and consumer goods for thousands of years. Technical aspects of design and manufacture of goods have been taught in engineering schools, and the process of product design and development has been studied by business scholars for many years. Service design and development, on the other hand, has never received this much scrutiny or study. Only recently, more attention is being paid to the design of services, mainly because the ever-increasing significant role of services in our economy has become obvious.

Consequently, the current level of service design and development experience and knowledge is nowhere near the level of experience and scientific knowledge accumulated for goods. This naturally leads many service researchers to the body of knowledge on goods for answers or clues for questions that concern service design and development. Hence we start from the same place and see what can be learned from manufacturing, and which tools and practices that have been successful in the design of goods can be used in designing services. First, the differences and similarities between goods and services are considered from a design perspective, and then some of the successful practices and tools employed in designing quality and value into goods that may also be used in the design and development of services are discussed.

Designing Goods and Services: Similarities and Differences

As pointed out earlier, customers don't buy goods or services; they buy solutions to their problems, satisfactions to their needs, or benefits they can enjoy. Therefore, the most important similarity between goods and services is that they are designed to provide a solution, satisfaction, or benefit. For example, George Eastman, founder of Kodak, said, "Kodak sells memories," and Charles Revson of Revlon said, "In the factory we make cosmetics; in the store we sell hope."

The second similarity is that designs of both goods and services are products of human creativity. The human mind first creates something new in concept and then figures out how this is going to be made.

The third similarity is that consumers rarely ask for the creation of a specific good or service. Consumers may express some vague needs but cannot usually articulate them in terms of goods or services; they respond only to what is offered to them. The late Steve Jobs, founder of Apple Company and one of the brilliant minds of our time, had this to say about designing new products and services:

> This is what customers pay us for—to sweat all these details so it's easy and pleasant for them to use our computers. We're supposed to be really good at this. That doesn't mean we don't listen to customers, but it's hard for them to tell you what they want when they've never seen anything remotely like it. Take desktop video editing. I never got one request from someone who wanted to edit movies on his computer. Yet now that people see it, they say, "Oh my God, that's great![3]

These unarticulated needs must be discovered and met with the benefits offered by a new product or service. We now note some of the important differences. Manufacture of goods requires many resources such as raw materials, semifinished products, labor, and energy. These resources are essential for the production of a good. The outcome of the design activity is a set of standards and specifications such as the type, grade, and quantity of materials to use, dimensions of various parts, and tolerances. Most of these specifications are expressed in a technical drawing called a **blueprint**. Conformance to standards and specifications in manufacturing is essential; deviations from them, beyond tolerances, can render the manufactured product unusable or defective and sometimes dangerous. The concept of a good can be visualized on paper, and a prototype

can be made and studied, measured, tested, and finally put into actual use. After the design is finalized and manufacturing begins, all the goods will be identical with only minor variations in dimensions.

In services, raw materials are rarely used, tools and equipment are used but they are not always essential. Airplanes are essential for air transportation service, but a couch is not essential for a psychiatrist's services. The outcome of service design is a concept, or an idea, and a description of a process for performance of the concept. Service design may have standards, but usually there are few, and deviations from these standards do not necessarily make the service "defective" or create undesirable consequences. No drawing of a service is possible because a service is performance. A service can be tested in a mock trial, but each performance will be different whether in test or in actual implementation because of the involvement of different customers and service providers. After the design is finalized and the service is offered to customers, no two service performances will be the same, and each customer's experience will be unique.

Another important difference between goods and services is that changes become more and more expensive in manufacturing as the design progresses. This is usually expressed as the 85/15 percent rule, which implies that approximately 85 percent of the cost of a good is determined by decisions made during the first 15 percent of the design period. After it is finalized and frozen, the design for a good cannot be changed easily, and manufacturing will follow the same design for all units produced. Service design, on the other hand, is not a static or rigid document; modifications and adaptations on-the-fly are possible and sometimes required for meeting widely varying customer needs and requirements. Furthermore, design changes in services are not likely to be as costly as in manufacturing. On the other hand, these characteristics create a risk; instead of improving a service, accumulation of unplanned changes may cause a slow deterioration of the service in the long run.

Tools for Designing Quality and Value

The now famous adage "You cannot inspect quality into products, it must be built in" was in response to the decades of long practice in manufacturing of relying largely on inspections to make sure that poor quality goods did not leave the factory. In the early 1980s, manufacturers and quality professionals began to learn from Japanese manufacturers that many quality problems can be solved by improving the manufacturing process, but even more dramatic improvements can be obtained in the design stage.

It is clear that most services do not lend themselves to inspection. There are very few things you can inspect before or after a service performance. For example, you can inspect the appearance of service employees, measure the waiting time and time for the service, and count the number of mistakes made by service providers. These measurements, of course, do not prevent service failures or guarantee customer satisfaction. Furthermore, the service quality is not judged by quality inspectors or service employees—it is judged by customers. Consequently, inspection is not an alternative for quality assurance in services. Just like in making superior quality goods, quality must be built in to the design of a service and its delivery system.