Today, every business is a service, and service is being transformed by advances in information technology. Roland Rust and Ming-Hui Huang offer a perspective on the service revolution and point to new directions for the marketing function.

Service Marketing

Insights and Directions

Roland T. Rust and Ming-Hui Huang

MSI MARKETING SCIENCE INSTITUTE

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Published by the Marketing Science Institute
1000 Massachusetts Avenue, Cambridge, MA 02138
Printed in the United States of America
ISBN-10 0-9823877-6-8
ISBN-13 978-0-9823877-6-4

Design by Kennard Design

Introduction

This is not an encyclopedia of all knowledge about service, because such an effort would require many volumes. Instead it is our idiosyncratic take—primarily based on our own writing, research, and consulting experience—on what is shaping the changes in service today, some of the major conclusions from service research in the last 20 years, and what we view as some of the significant service-related issues to which marketing executives should currently be paying attention.

The first author (Rust) began his work in service in the 1980s as a professor at the University of Texas at Austin, where he created a course on customer service. He extended his knowledge as a volunteer consultant to the Consumers Union's consumer advocacy office in Austin, and then founded his own consumer organization, PACT (Providing Awareness for Consumers in Texas). He moved to Vanderbilt University and founded a Center for Service Marketing in 1990, the "Frontiers in Service" conference in 1992, and the *Journal of Service Research* in 1998. Over this period of time much of his research focused on how to focus service investments, how to make service improvements financially accountable, and understanding the nature and impact of customer satisfaction and delight.

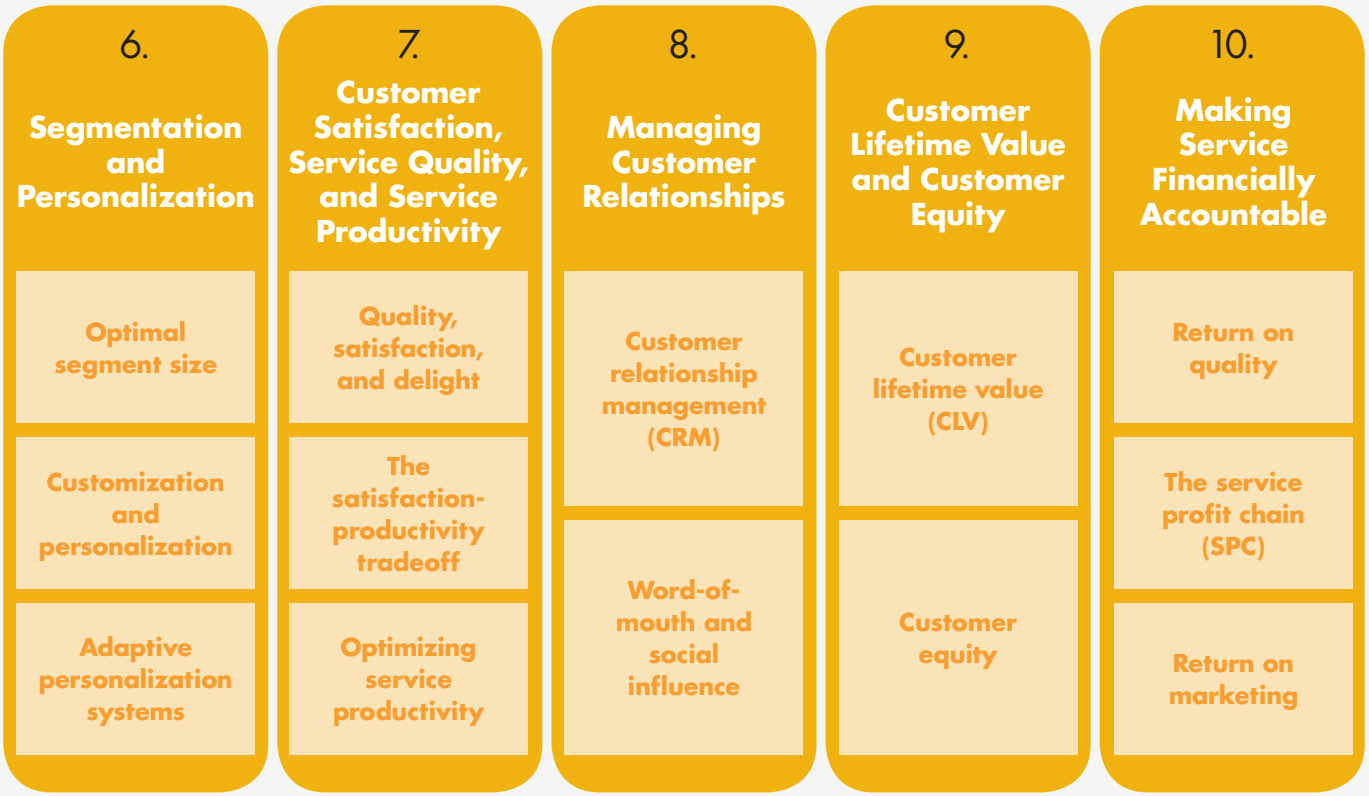
Service Marketing: Major Topics

1. The Service Revolution	2. The Service Information Transformation	3. New Lenses on Service	4. Every Business Is a Service	5. Redesigning the Marketing Function
Communicating more effectively with each other	**Transforming service** More tangible More separable More standardized Less perishable	Service logic	Every product is a service	The customer department
Understanding each other better	**Renovating service** Less tangible Less separable More customized More perishable	Service science	Every firm is a service firm	Metrics for customer-centered management
Personalizing service		Service infusion		

He moved to the University of Maryland in 2000, where he founded another center, now called the Center for Excellence in Service. During these years, the scope of his work expanded, extending service-related concepts to the marketing function and the entire organization, still with keen attention to financial impact. His current research focuses on the relationships between service productivity, service quality, and firm profitability. Over the last 20+ years he has worked with numerous companies and non-profit organizations on a wide variety of service issues. His approach is to think deeply about long-term historical trends, and to use those insights to pinpoint the areas of greatest opportunity.

The second author (Huang) comes to this project from a multi-disciplinary viewpoint, combining marketing and information technology. Her doctoral training in advertising at the University of Wisconsin helped shape her interests in the intersection of marketing and technology. She is currently a professor of electronic commerce in a department of information management. Her research has gravitated toward strategic issues at the intersection of marketing and information technology, with particular attention to how technological advance impacts service and customer satisfaction and how this shapes what marketing managers actually do and should do. As Director of the Management Research program for Taiwan's National Science Council (like the National Science Foundation in the U.S.), she especially encouraged major research projects that reflected the impact of technology on management. She has also served as a consultant and board of directors member for major corporations, mostly in Asia.

This "Fast Forward" report is the result of our research, historical thinking, and practical experience with dozens of organizations. Service is important, whether marketing physical goods or services, as every product is a service.[1] In the pages that follow, we explore the topic of service marketing using the conceptual frame-



works shown here. The first figure (pages 2 and 3) shows the major topics and subtopics covered. The second figure (below) shows how these topics relate to the focus of business attention, from the macroenvironment to the business and the marketing function, to the customer, and eventually to financial impact. We adopt an information technology (IT) viewpoint on the nature of service, because we believe that advances in IT shape all of the most important new developments and trends in service marketing.

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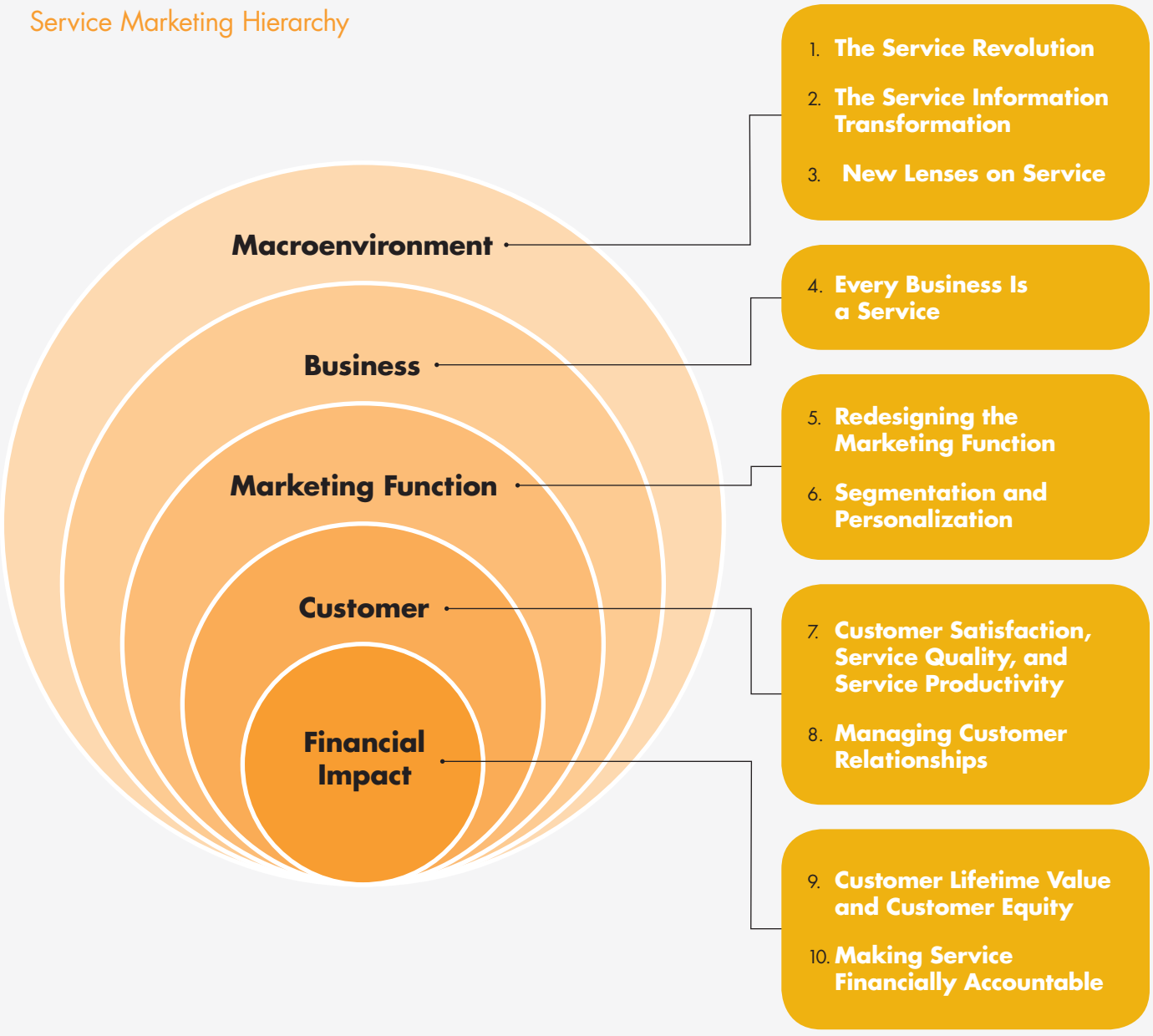
Service Marketing Hierarchy



1. The Service Revolution

The service revolution is one of the steadiest trends in business. In 1900, in the United States, the service sector employed 30% of the U.S. population. By 1950, that figure had risen to 62%. Since then, service's share of the economy has continued to grow steadily in every advanced economy; today, the U.S. service sector share of employment and share of GDP is between 75%–80%. The trend toward service shows no sign of abating, but why?

The answer to the question is that the service revolution and the information revolution are two sides of the same coin. Advances in information technology (IT) are driving the growth of service in the economy. Now, with IT, firms and customers know almost everything about each other, enabling greater customer participation in the service process.

From the firm's perspective, communicating with mass customers while keeping communication personal is possible through technologies such as the Internet and mobile devices. Storing and processing information make mass customization possible due to increasingly unlimited computing capacity. The cost of customization is significantly reduced, and thus smaller or even individual segments become economically feasible.

From the customers' perspective, their relationship with firms is more equal and balanced due to their newly gained information power. Customers now have the ability to talk back and actively choose and produce the service they want, not just engage in the service relationship that is chosen by the firm. For example, search agents provide customers with increased power to make informed choices, and social networking sites allow customers to share information and communicate with each other simultaneously and spontaneously.

Better IT enables firms and customers to (1) communicate more effectively with each other, (2) understand each other better, and (3) personalize service to better meet customer needs.

Communicating more effectively with each other

An essential aspect of service is learning about customer needs. This can be accomplished more efficiently using better communications technologies. The telephone had a revolutionary impact, as salespeople could communicate with customers in real time. Similarly, the Internet expands the degree to which customers and firms can communicate. For example, customers can express preferences with active technologies (e.g., chat rooms) and can communicate with firms about preferences using interactive technologies (e.g., shopping agents).

The merging of the mobile phone and the Internet combines the flexibility of the cell phone with the expansive information capabilities of the web, greatly expanding the degree of communication that is possible. Now communication is possible anywhere and anytime. Communications technologies have advanced steadily over the last 150 years, and innovations show no sign of slowing.

Today the U.S. service sector share of employment and share of GDP is between 75%–80%.

Understanding each other better

To create and deliver a service that meets customer needs, it is essential for the firm and the customer to understand each other better. Understanding is facilitated when information about the customer can be stored effectively. The computer and the use of computerized databases have revolutionized firms' understanding of customers. Financial services firms were among the first to fully exploit the use of customer databases to understand their customer base. Today, most firms seek to understand their customer base using computerized databases, either by tracking every customer (e.g., banks) or by analyzing customer panels (e.g., consumer packaged goods firms). Data storage capabilities have advanced steadily and dramatically,

typifying Moore's Law, which states that electronic storage capacity per unit volume doubles every two years.

To visualize the future of service, it is useful to consider how the service firm would change if it had total knowledge of the customer. Imagine what would happen to customer expectations. Right now, customers often tolerate service that is designed for the average customer, but if the firm had total customer knowledge, how could it not be expected to make service more and more personalized? Similarly, there would be implications of the customer knowing all about the firm. For example, a firm might not be able to get away with charging a high price anymore if the customer knows what the firm's costs are. It's not likely that total knowledge will occur any time soon, but that is the prevailing direction, and its implications are suggestive of changes that service firms should make today, in anticipation of continuing technological change.

Personalizing service

It is not enough to understand the customer. The firm must personalize its service to utilize that knowledge. New information technologies increasingly make it possible for service providers to adaptively personalize their service, fine-tuning the service over time for each individual customer, based on observation of that customer's behavior. Computer processing speed has steadily advanced throughout the history of computing and shows no sign of slowing. In recent years, methods such as data mining, machine learning algorithms, agent-based models, and Bayesian statistics have emerged into the mainstream of management because they are now computationally viable. We can anticipate that these methods will be used more heavily, and newer, even more computationally intensive, methods will emerge. The result is a much better understanding of customers, based on comparison with other customers using patterns that are discovered in the data.

Analysis of customer information will increasingly be the differentiating factor in service provision. We already see early prototypes of this approach. Gaming firms (e.g., Harrah's), credit card firms (e.g., Capital One), and online firms (e.g., Google or Facebook) that mine customer data to figure out optimal direct marketing decisions point the way that all business will go. As technology expands, a constantly advancing capability to analyze customer information will result in better, more personalized service. One example is the CRM systems that many firms employ today. Another is the recommendation engines that websites such as Amazon.com and Netflix use to provide personalized service, based on the customer's past preferences and behavior.

2. The Service Information Transformation

IT plays a critical role in the service economy. Service itself is not new; it is service plus information technology that transforms business. IT enables service, and its input and output information is central to service.

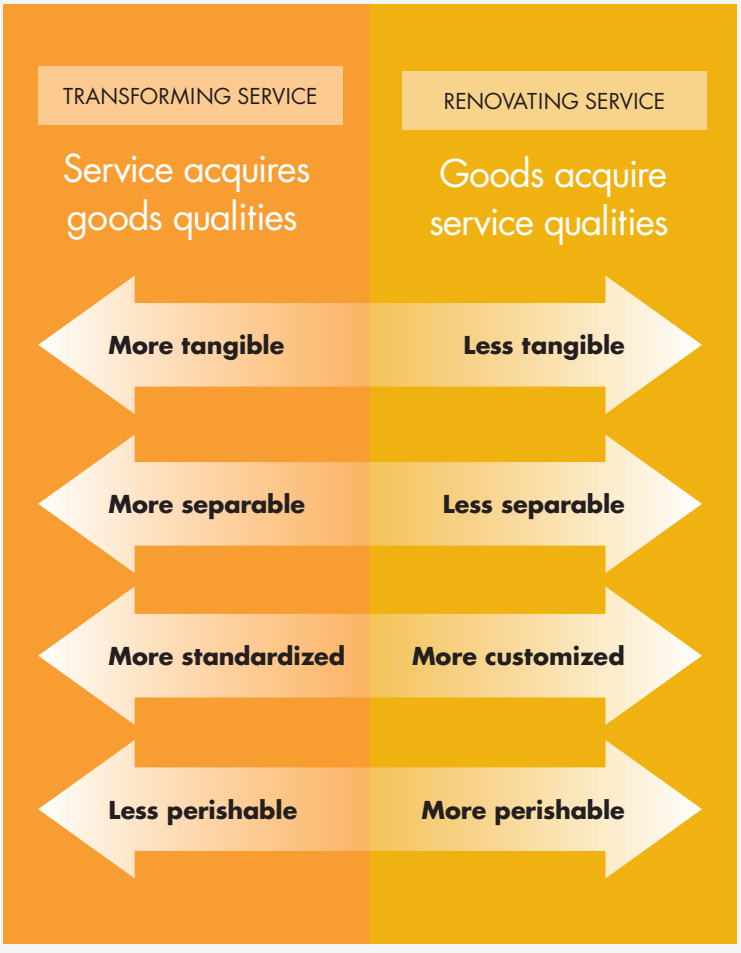
IT is shaping service in two opposite directions, as seen in the figure below. At one extreme, IT transforms service by standing the traditional service thinking on its head—making service more tangible (e.g., digital hybrids, integrated solutions), more separable (e.g., e-services), more standardized (e.g., automation), and less perishable (e.g., cloud computing). At the other extreme, IT renovates service, enabling firms to capitalize on the characteristics of service. Manufacturing sectors can be servitized (less tangible), firms can engage customers deeper in production through co-production and participation (less separable), firms can exploit rich information from customers to customize products to fit individual customers' needs (more customized), and time, not just price, can become an important consideration for both firms and customers (more perishable). The service information transformation further blurs the supposed distinctions between goods and service and implies that every business is a service.

Transforming service

More tangible. IT has blurred the line between goods and service. With infusion of IT, both goods and service incorporate each other's characteristics.Taken together, goods and services constitute digital hybrids or integrated solutions that firms must offer to maximize customer value. The key is solutions to customer problems, regardless of whether that solution is a good or service. For example, Dell Inc. configures tangible with intangible by incorporating intangible customization attributes, like after-sale and customization services, with the tangible attributes of computers. Similarly, Amazon.com configures intangible with tangible by pooling together a variety of online services and products.

More separable. Separability refers to the space and time dimensions of service, that is, the degree to which firms and customers do not need to be co-present. E-service—the provision of service over electronic networks such as the Internet—provides the best example where service providers are not required to be co-present with customers. In the

Information Technology Transforms and Renovates Service



context of e-service, services are separable and portable, which provides great convenience to consumers. Similarly, voicemail makes telecommunications separable in time. Digital downloads allow customers to access services remotely. Offshore programming and call centers belie the notion that services lack portability.

More standardized. Automation commoditizes services by allowing them to be more standardized. In an early use of IT in service, IT was primarily used to automate manual systems and to standardize routine and tactical activities to improve efficiency. For example, telephone service is now "created" in heavily capitalized facilities much like factories and is quite standardized. To date, many companies have focused exclusively on the use of the Internet to increase efficiency and reduce costs. However, the true potential of the Internet lies in using the technology to improve service to customers and drive revenues.

Less perishable. Perishability refers to the time dimension of service, the degree to which services can be kept in storage by consumers. Services are not perishable when consumers can buy them in advance for later use. The latest IT development in cloud-computing, which allows consumers to consume computing and store resources, provides an illustration of this service-information trend. Consumers share perishable and intangible computing power over the Internet. Google's Gmail is an example of making service imperishable, where services are provided in the form of storage capability on an annual basis and can be accessed and used any time at the consumer's convenience.

Renovating service

Less tangible. Firms take advantage of the intangible characteristics of services in servitization, where manufacturers connect physical goods to services such as replenishment, maintenance, spare parts provision, or financing. Servitization turns physical goods into intangible services that increase the value of the physical goods or make the value more difficult to assess. For example, the car business can be considered as a service business in which service is an essential part of the car. The business reality is that goods are commodities and it is service that sells the product. More and more businesses enter what is variously called the hosted, on-demand, or SaaS market where software is transacted in the market as a service.

Less separable. The trend toward co-production takes advantage of service inseparability to enhance interactions and relationships with customers. Nobody understands customers' demands better than themselves. The practice is to enhance the degree of inseparability so that a deeper relationship between firms and consumers can be established through co-production or collaboration.

More customized. The trend toward enhanced customization mainly stems from the information, rather than automation, benefit of IT, where IT enables two-way information flow and customer communication. Customization leverages the heterogeneity of service to fit individual customers' needs. IT enables large-scale relationship marketing and remote relationships. Hence, IT fundamentally renovates service. As discussed above, in the early days, IT mainly automated business processes for efficiency; increasingly, it is also used to customize for effectiveness.

More perishable. Unlike the other three service characteristics, perishability is primarily a concern for service providers, not customers. Marketers often enhance the perceived perishability of their products in order to increase the time value of their services, such as in the practice of limited time offers.

3. New Lenses on Service

The traditional view of service marketing is "marketing a service," which implies that service is just an augmentation of the physical goods, or that service could be considered as a product itself even if no physical product is involved.[2] However, as we have argued earlier, the distinction between goods and service is not clear and IT has further blurred that distinction, resulting in goods and services carrying each other's characteristics. As a result, it is not a matter of servititization or materialization: every business is a service. Three new theoretical lenses on service research—service logic, service science, and service infusion—have emerged to capture this phenomenon.

Service logic

The "service dominant logic"[3] or "service logic" summarizes the difference between the goods-oriented view of marketing and the service-oriented view. This logic appeared at a time when the goods and service sectors were considered to be two distinct industries and the distinction between goods and service was considered to be meaningful by many people. The service logic point of view instead holds that service provision is not something provided by the firm to the customer, but rather is a process in which both the firm and the customer co-create the service.

Co-creation can be achieved entirely by the firm, with the customer only engaged in the process via marketing communications (i.e., traditional service); it can be achieved partially by the firm, with the customer being invited to participate in its completion (i.e., e-service); and it can be achieved entirely by the customers, with the customer actively performing the role of employees and participating in the actual process of production (e.g., self-service).[4]

Service science

As IT has begun to play an ever more important role, the service science viewpoint has taken hold. IBM, a technology giant that has successfully transformed itself into an IT service firm, exemplifies and spearheads the service science approach. This approach typically takes an engineering, computer science, or systems science view of service systems. A service system is a configuration of technology and organizational networks designed to deliver services that satisfy the needs, wants, or aspirations of customers. Service science approaches tend to emphasize internal productivity and efficiency, although service science is beginning to broaden by incorporating customer-centered ideas from marketing, psychology, and other fields, and recent studies on service science emphasize an interdisciplinary perspective. For example, the marketing perspective contributes to service science thinking with service marketing ideas and concepts of e-services orientation, service-dominant logic, personalization and customization, customer relationships, and customer equity. Service science now can be seen as managing service systems for value co-creation, which involves the configurations of people, technology, internal and external stakeholders connected by value propositions and shared information.[5]

Service science now can be seen as managing service systems for value co-creation.

Service infusion or servitization

Service infusion or servitization (see page 8) involves goods companies adding service to their offerings. However, if service has traditionally been treated as a free add-on to physical goods, customers may not tolerate suddenly having to pay for it. In other words, the value of service remains intangible (or even invisible). Therefore, successful service infusion should not treat service as adding value to physical goods, but instead should recognize that every business is a service. In this viewpoint, even a physical good can be thought of as a service. For example, automobile firms should recognize that they provide transportation service (plus other services, such as fun of driv-

ing) that a customer wants—not just a car itself. Pilot Pen Corp. launched a digital handwriting campaign in 2009 that takes this "every business is a service" view. It does not sell its traditional goods, the physical pens, but instead focuses on selling "digital handwriting," a personalized communication service that allows customers to send out electronic messages with their own unique handwriting, rather than standard type fonts.

An opposite trend that was commonly observed during the transition from the industrial economy to the service economy was materialization, in which firms add physical components to their intangible offerings. For example, information services are often embedded in goods. A typical example is selling music (a service) in the form of a CD (a good). When the CD first came out, music labels were concerned that its small size conveyed low value, compared to the traditional vinyl LP album, and thus tried to make the CD look bigger by packaging it in a much bigger box.

4. *Every Business Is a Service*

"Every business is a service" has two levels of meaning: one addresses the essentiality of service as the product (i.e., every product is a service), and the other addresses the service transformation of firms (i.e., every firm is a service firm).

Every product is a service

At the product level, the old way of thinking was that service augmented the physical good, and thus the product was an "augmented product" (good + service). Service was understood either as an exclusive product that is primarily intangible or as a part of the service-good mix that a firm offers, such as a guarantee, warranty, or customer service, that provides additional value to customers, but is not the primary reason for customers to purchase the good.

The modern view holds that every product is a service. It is useful to think of the components of service as:

- The physical good, which is the tangible part of a product. Given that 75% of the economy is service, it is clear that most products do not even involve a physical good. This is even more the case in the digital age when many products are offered in digital forms.
- The service product, which is the service as it is intended to be delivered. This is the part of the experience apart from the transfer of physical goods and typically includes information transfer and/or interactions with the firm's personnel.
- Service delivery, which is the service provision process, performance, act, or interaction. This is how well the firm provides the service product, usually co-created with the customer. Service is often labor intensive, which means there is often considerable variability in service delivery (e.g., think about how variable restaurant service is). Thus, service delivery is an aspect that deserves special attention.
- The service environment (e.g., a website, a hotel, or an automobile sales showroom), which is the physical backdrop that surrounds the service, sometimes referred to as a "servicescape."[6]

Every firm is a service firm

Distinguishing between firms according to whether they market service or goods thus has only limited use. Instead, Theodore Levitt argues that we should speak of intangibles and tangibles because every firm markets intangibles in the marketplace, no matter what is produced in the factory.[7]

At the firm level, many manufacturing firms in the service economy have engaged in service transformation that molds those firms into service-oriented business. As noted earlier, IBM is the classic success story, transforming from a goods-dominant firm to a service-dominant firm within a period of about a decade.

Another successful example is Taiwan Semiconductor Manufacturing Company (TSMC). A capital-intensive pure foundry that supplies physical semiconductor chips worldwide, TSMC considers that "the main thing that we've learned is that foundry is a service-oriented business, so we are molding ourselves into a service company."

Anecdotal information from firms attempting this transformation suggests that successful evolution to a service-focused firm may require starting new service-focused business units. One of us (Rust) has personally been involved with such transformations at two of the world's largest firms, and in my (Rust's) experience, the biggest obstacle to success is the clash of cultures between the goods side and the service side of the firm. That is why creating a separate service business unit may help by providing a service culture a "safe" place to develop.

5. *Redesigning the Marketing Function*

With the firm increasingly service-oriented and customer relationships central, it is essential to reinvent the marketing department.[8] The more service-related the firm is, the truer this is. The marketing literature related to customer orientation and market orientation has mushroomed in the last 25 years, but how to deal with this concept organizationally has remained unclear. It is important that the firm be oriented toward its customers, but how can this be accomplished?

Market share should give way to customer equity share (the firm's customer equity divided by the total customer equity in the industry).

Research has suggested that customer orientation should be shared by everyone in the firm; as a result, many marketing-related functions (e.g., product development, customer relationship management, customer service, etc.) began to find new homes in the firm, and the marketing function narrowed toward marketing communications and (maybe) pricing. But marketing strategy research shows that an influential marketing function is necessary for healthy firm-customer connections, above and beyond the market orientation of the firm as a whole.[9] This suggests that the role of the marketing function should be to manage customer connections.

The customer department

To break from the existing goods-centered paradigm, it may be useful to replace the marketing department with a customer department. The distinction is important. The marketing department, as its name suggests, is focused on marketing something. The goal is to have a brand and to sell the brand's products to as many customers as possible. The customer department instead focuses on customers. The goal is to sell the firm's customers as many brands and products as possible. Instead of brand managers, the customer department has customer segment managers. The resources of the customer department flow through its customer groups, with brands only a means to an end.

Metrics for customer-centered management

A truly customer-centered firm requires new metrics. Whereas the traditional marketing firm focuses on product or brand profitability, the customer-centered firm focuses on customer profitability. Unprofitable products may serve the larger goal of producing profitable customers. Likewise a focus on current sales should give way to a focus on customer lifetime value. Brand equity (a product/brand-focused metric) becomes less important than customer equity (a customer-focused metric).

Most controversially, market share should give way to customer equity share (the firm's customer equity divided by the total customer equity in the industry). Customer equity share is a better metric than market share in several key respects. It is based on profit rather than sales, it is forward-looking instead of backward-looking, and it is closely tied to market capitalization.

6. Segmentation and Personalization

The technological revolution that has led to a service transformation also has implications for segmentation and personalization. As all of marketing becomes more service-like, relationships and interactive communication become increasingly important. Increased communication, combined with increased data storage and computational power, make personalizing service more feasible every day. More-targeted marketing is the most important current trend in the service revolution.

Optimal segment size

As technology advances, the cost of personalization and customization declines. Economic modeling shows that this implies smaller optimal segment size and narrower brands because economies of scale are less important, and customized products can be profitably mass-produced.[10]

The accelerating fragmentation of media (compare cable TV to network TV of 50 years ago) and rise of interactive technologies have aided communication specificity. Also, since most service involves information services, specificity in service provision becomes essentially costless, because it requires only the adjustment of bits of information.

Smaller segments also imply narrower brands.[11] A narrower, more specific brand, if targeted accurately at a narrow market segment, will be preferred, all other things being equal, to a less targeted brand. We already see this tendency in many industries, such as hotels, where a parent firm presides over a portfolio of brands with different images and target markets. Consider, for example, Starwood Hotels, which includes under its corporate umbrella such distinct hotel brands as W, Le Meridien, and Four Points.

Customization and personalization

Especially in information services, such as the Internet typically provides, this demand for specificity has led to a growing attention to customization and personalization. These terms are not yet clearly differentiated, but increasingly, customization refers to marketing-mix tailoring that the customer creates him/herself, while personalization refers to marketing-mix tailoring done by the service provider. Customization occurs when the customer proactively specifies one or more elements of his or her marketing mix. Personalization is usually based on previously collected customer data.

To visualize customization, imagine that the customer visits a news site, which presents the customer with a menu of news items. The customer chooses the types of news likely to be of greatest interest, and from then on, the site features those news items most prominently. With personalization, on the other hand, the website tries to figure out the preferences of the customer by observing the customer's behavior. Personalization is likely to prove to be more successful than customization, because it requires less effort on the part of the customer.

Adaptive personalization systems

A recent development is the adaptive personalization system that observes the customer's behavior over time, and adjusts the service offering accordingly. For example, Rust and coauthors[12] built an adaptive personalization system for digital music downloading. Customers listened to songs on their device (similar to an iPod), and the device kept track of the amount of time spent on each song, and whether the listener skipped away from the song before it ended. Based on this information, and combining it with information from other customers, the music system adjusted the playlist. This can be done repeatedly to make the song mix increasingly match the customer's preferences. In other words, the service product reformulates itself over time, based on the customer's behavior, and evolves to fit the customer better and better.

More-targeted marketing is the most important current trend in the service revolution.

7. Customer Satisfaction, Service Quality, and Service Productivity

Because of the importance and variability of service delivery, the concepts of customer satisfaction, service quality, and service productivity become of vital importance in managing service. Customer satisfaction and service quality feed the revenue side of the service profit equation and service productivity feeds the cost side.

Quality, satisfaction, and delight

Service quality. In service, quality is in the eye of the beholder. Thus, if quality is perfect by objective measures, but the customer thinks the service is bad, then the service quality is bad.[13] On average, if the internal metrics are well designed, "objective" quality should be positively correlated with perceived service quality, meaning that one can predict changes in perceived service quality from changes in internal quality metrics.

It is also the case that different customers may have different perceptions of the same service. What is seen as good quality by one may be seen as poor quality by another. This implies that there is customer heterogeneity in preference to the firm's service (the quality delivered is the same, but customers have different preferences), or there is variation in the delivery of the service to different customers (the quality delivered is actually different). We can expect that with the service revolution allowing mass customization and personalization, the variation in service quality perception will be reduced.

Customer satisfaction. Customer satisfaction is a somewhat more complex concept than perceived service quality, since it can involve customer emotion. In general, customer satisfaction is driven by the difference between the service quality perceived, and the service quality that was expected. This is known as the "disconfirmation of expectations."[14] From behavioral decision theory, we also know that worse-than-expected quality has a larger impact on behavior than better-than-expected quality because individuals are loss averse such that changes in losses loom larger than equivalent changes in gains.[15] This is confirmed in the customer satisfaction context where disconfirmation is asymmetric; customer satisfaction is more sensitive to negative disconfirmation than positive disconfirmation.[16]

In the customer service context, loss aversion may affect customers' quality perception, disconfirmation, and eventually satisfaction, based on their perception of the quality of customer service. Providing customers with the best possible service is an important way to maintain long-term relationships with customers. For some products, the importance of such services can outweigh the importance of product quality. Customer service can sometimes make up the gap between expectation and quality performance for the product.

Customer delight. Customer delight describes the positive emotions that customers experience from the surprising high positive disconfirmation.[17] Two conditions are required: (1) that perceived service quality be substantially better than expected, and (2) that the customer be sufficiently aroused to exhibit surprise. Delight can result in behavioral outcomes that are at a higher level than for mere satisfaction. It is worth noting that even a "10" on a 10-point satisfaction scale may not indicate delight. For example, if you turn on a light switch and the light comes on, that should probably mean a "10" on the scale, but there is no surprise.

Some managers express concern that delighting the customer would "raise the bar" of customer expectations, making it more difficult to satisfy the customer in the next purchase cycle and hurting the firm in the long run. Research shows that although delighting the customer heightens repurchase expectations and makes satisfying the customer more difficult in the future, competitors are hurt more through customer attrition, implying that delighting the customer is a net positive, even considering the raising of expectations.[18]

The satisfaction-productivity tradeoff

The quality gurus who revolutionized manufacturing (Deming, Juran, and others) held that better processes improved productivity while at the same time improving quality and customer satisfaction. It turns out that this belief holds true for goods-sector businesses, but not necessarily for service-sector businesses. Because service tends to be more labor intensive, improving service quality often requires greater labor intensity, implying lower productivity. Empirical research across many industries verifies this tradeoff between customer satisfaction and productivity for service businesses.[19] This implies that most service businesses must choose one of two paths to profitability—either the high productivity-low price–low service quality path (e.g.,Wal-Mart) or the low productivity-high price–high service quality path (e.g., Ritz Carlton). Only service industries that are very standardized and factory-like avoid this tradeoff. Given the continuing trend toward a service economy, plus the increasing extent to which "every business is a service," we can expect this satisfaction-production tradeoff to become even more important in the future.

Optimizing service productivity

Given the tradeoff described above, it is useful to think of service productivity as a strategic decision variable to be optimized. Given a particular level of available technology, the firm can select its productivity level on a continuum from high productivity (limited labor, heavy automation) to low productivity (heavy labor intensity, less automation).

In the real world, firms often have a productivity level that is too high or too low. For example, there is research evidence that increasing productivity by having customers perform some of the service themselves (co-production) can be beneficial.[20] Yet there is substantial anecdotal evidence that other types of service productivity increases can go too far.

Call-center off-shoring provides an example of automating too much for technology-mediated services. For years, firms have automated their call centers overseas based on cost consideration, using low-cost human agents to provide standardized services via a "telephone menu." Many have moved or are moving back their call centers to achieve a higher-quality service and increased customer satisfaction. For example, Dell dropped its Indian call center in 2003 following customer complaints about the quality of service. Surveys released in February 2004 showed that, while Dell's market share has continued to grow, customer satisfaction has declined. The company has acknowledged the problem and said steps are being taken to improve tech support and other customer services. United Airlines is moving 165 call-center jobs from India to Chicago and Honolulu to help improve customer service. The most important factor driving this movement is the emphasis on service quality. Organizations want to differentiate their service delivery while maintaining high levels of customer satisfaction for future retention and loyalty.[21]

Customer service can sometimes make up the gap between expectation and quality performance for the product.

The above example suggests that companies may sometimes seek too high a level of service productivity, at the expense of service quality, customer satisfaction, customer retention, and future sales.

Research shows that at a given level of technology, an optimal productivity level exists, and it can be predicted by such factors as price, profit margin, number of competitors, wage rates, and the extent to which factors other than service quality drive sales.[22] As time goes by, the level of technology inexorably increases, leading the optimal productivity level to also increase. Thus, as technology improves, automation increasingly substitutes for labor (e.g., automatic car washes, the Internet, airport kiosks) and can often provide even better service quality than labor can provide.

Hence, to what extent technology should replace labor depends on the current level of the technology. It is possible for technology to facilitate managing customer relationships and enhancing customer loyalty, if the technology is intelligent enough, and if it is used not just for repeated transactions but also to understand customers better and build a deeper customer relationship.

8. *Managing Customer Relationships*

The key element that differentiates service marketing from traditional goods-centered marketing is the importance of ongoing relationships with customers. Whereas a goods-centered approach involves one-way mass communications to induce transactional sales, a service-centered approach involves two-way (or multi-way) interactive communications to grow customer relationships, with sales playing out over time.

The provision of value and the degree of value consumption hinge on the relationship.

Managing customer relationships requires maintaining ongoing records of all interactions with customers and using statistical models to determine how best to orchestrate the marketing actions focused on each customer.

When customer value is inseparable from the customer relationship, the provision of value and the degree of value consumption hinge on the relationship. Hence, special attention should be paid to the integration of customer relationships with the supply chain to facilitate value consumption.

Customer relationship management (CRM)

Many firms have built customer databases that enable them to analyze the behavior of their customers over time, as well as the targeted marketing efforts that may have affected that behavior. Some marketing actions are intended to drive immediate sales, while others are intended to build the customer relationship, but not to stimulate immediate sales. Effective CRM modeling can facilitate the optimal marketing mix at an individual customer level. For example, relationship-oriented marketing interventions (i.e., information on services and lifestyle information) are found to be more effective with loyal customers, while action-oriented interventions (i.e., price discounts) are more effective with non-loyal customers.[23]

Word-of-mouth and social influence

Customers affect profitability not only through their own purchases, but also through word-of-mouth that affects purchases by others. As communication technologies advance, word-of-mouth has becoming increasingly important. The Internet, mobile telephony, Twitter, and Facebook have all amplified the power of word-of-mouth not only by enabling word-of-mouth communications but by making such used-to-be costly data (i.e., customer feedback) available at a minimal cost.[24]

Increasing word-of-mouth implies that customers can spread service failures faster than ever, and thus service recovery efforts also need to be much faster. It also implies that firms can use this to their advantage by seeding social media with the desired messages. Ethically, the firm should identify itself as the source for such messages, but some less forthright firms seed such messages anonymously, using paid flacks.

9. Customer Lifetime Value and Customer Equity

As customer relationships become increasingly important, the most important metrics for the firm are customer-centered metrics. The importance of a service customer is measured by the customer's long-term value to the organization. The firm should adjust its strategy and tactics to increase the value of its customer base. Central to this effort are the concepts of customer lifetime value and customer equity.

Customer lifetime value (CLV)

The value of a customer is determined by the contribution to profit from sales to the customer minus the direct marketing and relationship costs of cultivating the customer relationship.[25] Such information is often collected in CRM systems and customer databases. Anticipated future contributions and costs are discounted, as is typical in net present value (NPV) calculations.

The time horizon considered to be the "lifetime" of the customer is typically not the actual lifetime of the consumer. Rather, either an infinite time horizon or a fixed time period is used. There are advantages to using an infinite time horizon—most notably that some of the mathematics of CLV computation becomes simpler. In rapidly changing business environments, however, it may make sense to limit the time horizon to a period of time in which the business environment is unlikely to change radically. Many companies use a three-year horizon for this purpose.

Of course, one of the concerns of CLV calculations is that the future is not really known. Typically, current information about the customer's frequency of purchase, size of purchase, and likelihood of retention is assumed to stay constant over time. This gives a rough idea of the customer's lifetime value. Recent research has attempted to predict the future profitability of customers, with increasing success.[26] Doing so is not easy and straightforward, because it must predict future marketing actions as well.

Customer equity

Customer equity is the sum of the customer lifetime values of the firm's current and future customers.[27] Research has demonstrated a close relationship between customer equity and market capitalization.[28] Customer equity is, thus, the organizational metric that can best evaluate the effectiveness of strategic marketing investments. Research has developed methods for projecting and evaluating return on marketing investments (such as service improvement efforts) using customer equity.[29] These methods have been implemented at many leading corporations worldwide.

The three key drivers of customer equity are value equity, brand equity, and relationship equity. Value equity is the rational or objective evaluation of the service, including such elements as quality, price, and convenience. Brand equity is the emotional or subjective evaluation of the service, including such things as brand image, brand ethics, and attitude toward the brand. Relationship equity is the tendency of the customer to stick with the service, based on strength of relationship and switching costs, after removing the effects of value equity and brand equity.[30]

Not surprisingly, service providers tend to emphasize relationship equity much more than goods producers do, because of the potential for human contact to build customer relationships. Relationship equity is also becoming more important because of communication technologies, such as the Internet, which make relationship maintenance more efficient.

10. *Making Service Financially Accountable*

Cost reductions go immediately to the bottom line, but service improvements affect profitability over time through increasing customer retention and future sales. This means that making service financially accountable requires estimating the impact on customer retention and the impact of increased customer retention on future sales.

Return on quality

One approach to doing this is known as return on quality (ROQ).[31] In this approach, the firm identifies the key processes that touch the customer. Then customers are asked for the key drivers that create satisfaction or dissatisfaction within each process. Combining the internal view (identification of processes) with the external view (identifying key drivers of satisfaction) produces a "bridge of actionability." Identifying key drivers without placing them within business processes often creates nebulous results that management has a hard time understanding. For example, one very early study that one of the authors did[32] in the banking industry suggested that the bank increase its "warmth." It was difficult for the bank to figure out what to do with that. By contrast, consider a result that says the "teller" process is important, and that "friendliness of the teller" is the most important key driver. Such a result is immediately actionable through a teller training program.

The most advanced method for making service quality financially accountable is the "return on marketing" approach, based on the change in customer equity.

The ROQ approach models statistically the impact of satisfaction with each process on overall satisfaction, and the impact of key drivers within each process on overall process satisfaction. By mapping overall satisfaction to customer retention and adding in relevant financial information (e.g., contribution to profit and cost of service improvement), it is possible to project (or evaluate after the fact) the return on investment of service improvement efforts.

The service profit chain (SPC)

The service profit chain adds a new element to the return on quality approach.[33] This approach posits that employee satisfaction is also an important part of the chain, and that happy employees lead to happy customers. Although this idea is intuitively appealing, empirical support has been mixed. Employees might be happy just because they don't have to work very hard. Thus, while disgruntled employees are always sure to be a problem, satisfied employees are not necessarily better employees.

The best results have come from models that substituted employee climate measures (e.g., "I have the resources I need to do my job" or "Management considers service quality to be very important") for the employee satisfaction measures.[34]

Return on marketing

The most advanced method for making service quality financially accountable is the "return on marketing" approach, based on the change in customer equity.[35] The ROI of a service improvement may be calculated as:

ROI = (change in customer equity – service investment) / service investment

where the service investment is the discounted net present value of the expenditures required to initiate and maintain the service improvement effort.

Because the service investment is usually known fairly accurately, the major issue in applying this approach is to evaluate the change in customer equity. This can be done either before the investment, as a projection of future ROI, or after the investment plays out, to measure the ROI actually achieved. In the first case, the firm must estimate (either through managerial judgment, historical experience, or test marketing) the shift in the targeted driver of customer equity. In the second case, the firm simply measures the change in the targeted driver after the service improvement is implemented.

Conclusion

Every business is a service, and service is being transformed by advances in information technology. Even goods businesses are finding themselves to be service businesses to an increasing degree. Finding the right balance of automation and labor is the key to the productivity-satisfaction tradeoff. As technology advances, an organization's ability to manage customer relationships increases, leading to a focus on customer lifetime value and customer equity, and an increasing ability to make service marketing investments financially accountable. This implies a new structure for the marketing department, transformed into a customer department that focuses on customer relationships. Service will become increasingly information-based, personalized, and analytical. Service will continue to be the fastest growing and most rapidly changing part of business, as well as the most exciting.

Notes

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