

SSME: Services

Supporting presentation: SSME services.ppt

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Presentation Notes

The presentation paired with this services module is considered to be supplemental and provide general context around the evolution of services and their modern context in driving economies. Materials can be used as a stand-alone introductory topic or supplemental to individual topics.

Slide 1: Services

Services

This module focuses on introducing a comprehensive set of definitions of services. The module includes materials that provide early definitions and thoughts on services. This brief history is and survey of services is also meant to provide some context around the burgeoning study of services and impact on modern economies.

Slide 2: Objectives

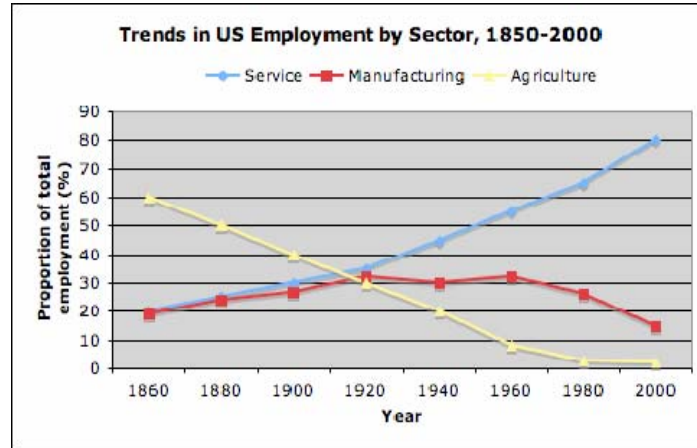
Objectives

1. **Attain a comprehensive definition of *services***
 - a. **Give context to the study of services**
 - b. **Discuss history and early definitions of services**
 - c. **Discuss differences between products and services**
2. **Recognize modern thinking behind *services dominant logic* of economic exchanges**

Slide 3: Context and Motivations

Context and motivations

- Services becoming the new hub of most modern economies
- Services dominating current economic activities



Trends in United States employment by sector, 1850-2000 (U.S. Department of Commerce, 1995, p. 417).

The economic exchanges of advanced economies are becoming dominated by services; this is reflected in the economic data of the United States and other countries (US Department of Commerce, 1995). (The trends figure illustrates the job distribution in various economic sectors of the United States. The services sector overwhelms all other sectors.)

This dominance is not restricted to the more traditional notion of services, (e.g., hospitality, healthcare, or education) but also appears in less traditional industries such as in the information technology (IT) services landscape. (Indeed, the services divisions of many IT providers are overshadowing their total revenues.)

Services seem to be the new hub of most economies. For instance infrastructure services such as transportation, communication, and education are links to all other economic sectors. Not to be forgotten, one of the largest and most important providers of services is the government (e.g., drinking water, public safety, and generalized healthcare).

Slide 4: Percent Employment in Service Jobs

	1980	1987	1993	1999
USA	67.1	71	74.3	80.4
Canada	67.2	70.8	74.8	73.9
Japan	54.5	58.1	59.9	72.4
France	56.9	63.6	66.4	70.8
Italy	48.7	57.7	60.2	61.1
China	13.1	17.8	21.2	26.4

Percent employment in service jobs, 1980-1999 (United Nations, 1999).

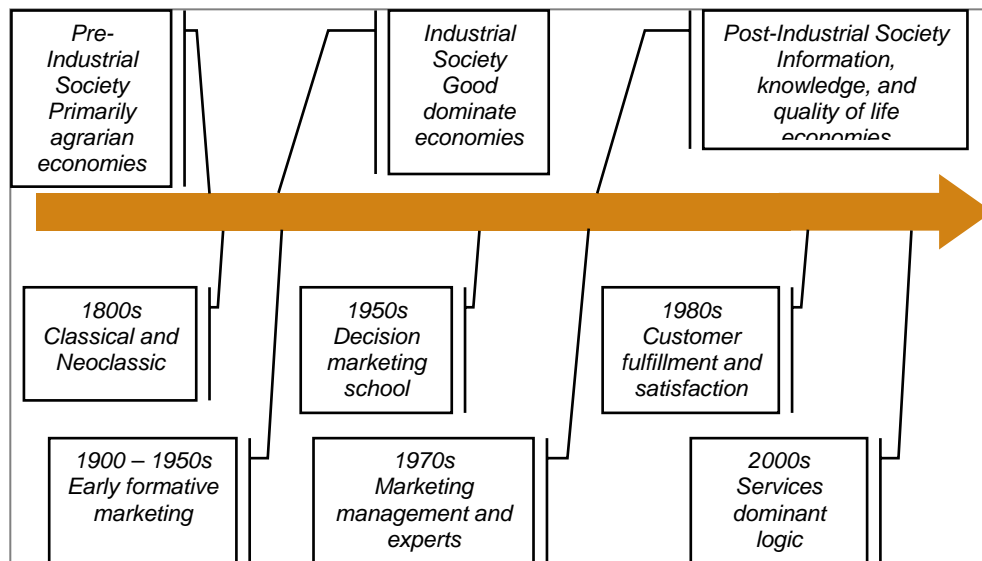
The United Nations (1999) percent employment in service jobs illustrates the following:

- Other industrialized nations have are also experiencing increases in employment in service jobs.
- Currently considered to be the manufacturer of the world, China's services job increase has been less pronounced than the other countries in the table.
- Canada's distribution is very similar to the United States.

The primary purpose of the field of Services Sciences, Management, and Engineering (SSME) is to help:

- Understand and define the services dominant economic shift.
- Discover the fundamental principles underlying services.
- Determine the elements necessary for systematic services innovation.
- In this module, we attempt to broadly address the question: *What are services?*

Slide 5: Economic Evolution of Services



The figure on slide 5 was created by combining two views of services history: Marketing View (Vargo & Lusch, 2004a) and Social View (Fitzsimmons & Fitzsimmons, 2003). This (not to scale) timeline is provided to yield a perspective of the simplified and general evolution of services and is not thought to be inclusive of all thoughts on the topic. Each of the figures elements are explained in greater detail as follows.

Discussion of services as a means of economic exchange started as early as the late 1800's by Adam Smith (1991). To get an overview of services thinking in academic disciplines that highlights the post-1800s, it helps to look into the ongoing debate of *goods vs. services* from both a marketing and economic perspective as well the more social and management point-of-view.

Vargo and Lusch (2004a) summarize the debate of goods versus services as a primary economic exchange by dividing the debate into the following broad periods of marketing thinking:

1. *Classical and neoclassical views [1800's]*
 1. Value embedded in matter (good-centric view)
 2. Wealth created by acquiring tangible things
 3. Marketing is matter in motion
2. *Early formative marketing [1900—1950]*
 1. Characteristics of good
 2. Marketing institution's role is to embed value
 3. Transaction and output are keys
3. *Decision marketing schools [1950's]*
 1. Marketing as decision-making activity
 2. Four P's: product, place (distribution), promotion, and price
 3. Optimality of decisions
4. *Marketing management and experts [1970's]*
 1. Determine company's marketing decision variables

2. Maximize company's objectives in the face of *noncontrollable demand variables*
3. Relationship marketing
4. Quality and resource management
5. Supply and value chain management
5. *Customer fulfillment and satisfaction [1980's]*
 1. The primary motivation of services is to achieve high customer satisfaction
 2. This leads to assuring service quality attributes that are important to customer segments
6. *Services dominant logic [2000's]*
 1. Everything is seen through the services lens
 2. Products are the materialization of knowledge sold to consumers to satisfy a service need

Fitzsimmons and Fitzsimmons (2003) take a complementary view of the evolution of services by considering the stages of development of societies. They highlight three periods as:

1. *Pre-industrial society*
 1. Population tries to survive against the forces of nature
 2. Technology has very low impact or is nonexistent
 3. Societies are agrarian and structured by traditions
2. *Industrial society*
 1. Production of goods dominate economic activities
 2. The quantity of produced goods is the primary factor
 3. Labor union helps regulate social life and rights
3. *Postindustrial society*
 1. Quality of life is the most important aspect of day-to-day activities
 2. Information is the key resource
 3. Services that improve life activities such as health-care and education are paramount
 4. Dominance of jobs in the service sector such as knowledge workers with professional and technical skills

If one ascribes to the generalized services timeline, it follows that the evolution of economies will lead to the dominance of services as a means for sharing and using the skills and knowledge necessary to create business, government, or personal value—an argument that will lead to the final discussion of *is there a need for a service science?*

Slide 6: What is a Service?

Per Wikipedia (2006a):

In economics and marketing, a service is the non-material equivalent of a good.

It is claimed to be a process that creates benefits by facilitating either a change in customers, a change in their physical possessions, or a change in their intangible assets.

By supplying some level of skill, ingenuity, and experience, providers of a service participate in an economy without the restrictions of carrying stock (inventory) or the need to concern themselves with bulky raw materials. On the other hand, their investment in expertise does require marketing and upgrading in the face of competition which has equally few physical restrictions.

There are numerous definitions of a service or services in the literature (a few are listed below). This definition provided by Wikipedia (2006a) includes many ideas and constructs around services that are discussed in the literature. The definition is a launching point for the following material that provides additional detail with respect to the ideas and constructs such as parties

involved in a service, creating benefits (or value), and supplying an intangible. Following are some earlier and additional contemporary definitions of “services”.

- ...work output that perishes in the very instant of its production (Smith, 1991).
- A good is a tangible physical object or product that can be created and transferred; it has existence over time and thus can be created and used later. A service is intangible and perishable. It is an occurrence or process that is created and used simultaneously or nearly simultaneously (Sasser, 1978).
- A service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems (Gronroos, 1990).
- Services are deeds, processes, and performances (Zeithaml & Bitner, 1996).

Slide 7: Service Dominant View

Vargo and Lusch (2004) recently suggested that the dominance of the services sector in most developed countries point to a shift in the model of unit of economic exchanges. They propose a revised marketing logic that is centered on a services dominant view of all exchanges. (Note that, in general, the inclusion and redefinition of services as an economic unit seems to be a hot topic amongst macroeconomists due to impact in the calculations affecting NIPA (National Income and Product Accounts) which, in turn, affects GDP (gross domestic product) estimates (Whelan, 2001).

The services dominant view revolves around three primary notions:

- *Co-creation of value*
 - This is the idea of the customer as co-producer of the value extracted from the service system
 - The customer as input to the service process
- *Relationships*
 - The relationship with the customer is of paramount importance and is a source of innovation and differentiation
 - Long-term relationships facilitate the ability to tailor the service offerings to the customers' needs
- *Service provisioning*
 - Provision service capacity to meet fluctuations in demands while retaining (quality of service) QoS
 - QoS is mainly from the perspective of the customer

Slide 8: Provider-Client Relationship

- **Provider**
 - **An entity (person, business, or institution) that makes preparations to meet a need**
 - **An entity that serves**
- **Client**
 - **An entity (person, business, or institution) that engages the service of another**
 - **An entity being served**
- **Some general relationship characteristics are that the client**
 - **Participates in the service process (also known as the service engagement)**
 - **Co-produces the value**
 - **The quality of service delivered depends on customers preferences, requirements, and expectations**

Although relatively simple, the definitions Provider and Client (or customer) definitions provided here are generally used through the modules.

Slide 9: Services Process Matrix

One approach to foster understanding across service sectors and hopefully catalyze service innovation is to come up with classification schemes for services. One such classification, illustrated by slide 10, is the *service process matrix*, originally proposed by Roger Schmenner in 1986 (this material is adapted from Lovelock (1983) and Fitzsimmons and Fitzsimmons (2003)).

Services are classified under two dimensions:

Degree of labor intensity

- Defined as the “ratio of labor cost to capital cost”
- Services with high labor intensity are schools and retailers (mass services) which depends on the manual labor of educators and the retail managers—employees who perform the services

Degree of interaction and customization

- Ability of the service client to affect the value that is co-created
- Most professional services, (e.g., doctors, lawyers, and IT services) require a high-degree of customization
- Standardized services are the low-customization kind (e.g., clothes cleaning and auto repairs (service shops))

Slide 10: Nature of Services Act Matrix

Lovelock (1983) proposed additional classification schemes that take into account various service dimensions. The classification schemes are: (1) nature of the service, (2) client relationships, (3) availability of service, (4) service demand variation, and (5) service delivery. These classifications schemes are illustrated on this and the next 5 slides. A key point to note is that this and the following classifications are characteristics in a continuum, they are all interrelated, and a service cannot be analyzed by looking at only one set of dimensions.

The first matrix in Lovelock’s classification tries to expose the nature of the service act by looking at two dimensions:

Nature of the act

- Tangible
- Intangible

Recipient of service

- People
- Things

Tangible services that are directed at people include health-care, transportation, and restaurants. Tangible services can also be directed at things would include dry cleaning which is directed at the clothing.

Intangible services are directed at people’s psyche and tend to be in the realm of entertainment, education, and media. Intangible services can also be directed at thing, where examples are banking services directed at someone’s assets.

Understanding the nature of the service act can suggest areas of service innovation. For instance, since most banking services are directed towards “things” (assets) they might easily be delivered in a self-service environment. The Web, as a medium for most personal banking transactions, is a good example of the application of this insight in practice.

Slide 11: Client Relationships Matrix

Since the customer is a co-producer of the service's value, it comes as no surprise that an important dimension of service classification is the types of relationships that a service provider has with its customers. The two dimensions are:

Type of customer relationship

- Membership
- Informal

Type of service delivery

- Continuous
- Discrete

A long-term relationship with a customer may allow a service provider to offer customized services as well as special benefits. For instance, cell-phone service providers use the membership relationships that they have with customers to do cross-selling. Many standardized services are offered as continuous services with long-term customer relationships (e.g., basic utility services). When the relationship with the customer is informal, (e.g., public radio or TV stations) service providers offer differentiations by trying to forge better customer relationships.

Slide 12: Availability of Services Matrix

Another classification focuses on the availability of the services. The two dimensions are:

Availability of service outlets

- Single site
- Multiple sites

Nature of the interactions between the customer and the service provider's employees

- Customer travels
- Service provider travels
- Transaction is at arms length of customer

Generally, the more available a service is, the better. However, due to the nature of the service act, some services are easily replicable and therefore available in wide geographic areas (e.g., bus services and fast-food restaurants). Other services are restricted to unique sites and require travel by at least the client, provider, or an agent to access or experience the service (e.g., a sports arena or a theater).

Slide 13: Services Demand Variation Matrix

Lovelock (1983) proposes a services classification matrix dedicated to understanding services in the context of demand variations. If there is the assumption that services are perishable, that is they cannot be inventoried, the ability to plan and meet demands is critical to most services operations. The dimensions of this classification matrix are then:

Demand fluctuations

- Wide
- Narrow

Supply constraints

- Peak demand without delay
- Peak demand exceeds capacity

Slide 14: Services Delivery Matrix

The final classification in Lovelock's scheme is to look into the customization aspects of services delivery. In particular to see how services delivery is impacted by an employee's judgment. The dimensions are:

Extent of customization

- High – for instance surgery which requires high judgment from service employee
- Low – for instance being entertained by spectator sports requires low interaction from service employee

Importance of service employee's judgment

- High
- Low

Slides 15 and 16: Distinguishing Services from Goods

Slide 15

Inseparability

- Services are created and consumed at the same time
- Services cannot be inventoried
- Demand fluctuations cannot be solved by inventory processes
- Quality control cannot be achieved before consumption

Consideration: *Does the ability to tailor and customize goods to the customers' demands and preferences mean that these goods also have an inseparability characteristic?*

Heterogeneity

- From the client's perspective, there is typically a wide variation in service offerings
- Personalization of services increases their heterogeneous nature
- Perceived quality-of-service varies from one client to the next

Consideration: *Can a homogeneous perception of quality due to customer preference idiosyncrasies (or due to customization) also benefit the goods manufacturer?*

Slide 16

Intangibility

- Services are ideas and concepts that are part of a process
- The client typically relies on the service providers' reputation and the trust they have with them to help predict quality-of-service and make service choices
- Regulations and governance are means to assuring some acceptable level of quality-of-service

Consideration: *Do most services processes involve some goods?*

Perishability

- Any service capacity that goes unused is perished
- Services cannot be stored so that when not used to maximum capacity the service provider is losing opportunities
- Service capability estimation and planning are key aspects for service management

Consideration: *Do clients who participate in some service process acquire knowledge which represents part of the stored service's value? What might the impact be?*

In an effort to find a comprehensive definition for services, an important question raised in the literature is: *what are the characteristics that distinguish services from goods and vice versa?* In material for slides 15 and 16, an initial answer to this question is provided. This answer is based on pioneering work by Christopher Lovelock (1983) that evolved into the IHIP (Inseparability, Heterogeneity, Intangibility, and Perishability) characteristics. The slides provide definition of each characteristic; however, in more recently Vargo and Lusch (2004a, 2004b) debate these characteristics as myths that are too limiting in scope and evolve services and goods into a services-centered view for all economic exchanges.

Both points-of-view are provided on slides 15 and 16 to demonstrate an evolution in services thinking and to provide a forum for discussion of how the instructor or student might modify these notions. The bullet points under the IHIP characteristics are relevant to Lovelock's initial definitions and the "Consideration" is the counterpoint or myth proposed by Vargo and Lusch.

Services have characteristics that distinguish them from goods. In particular, the customer of a service is typically a participant in the service process. The customer *co-produces* the value (or benefit) along with the service provider via ongoing interactions. The extent of the co-production varies from indicating preferences, e.g., styling preferences at a barbershop service, to being an active pseudo temporary "employee" of the service process, e.g., collecting your order at a fast-food restaurant, or scanning your items, bagging, and paying using a supermarket self-checkout service system.

The customer as co-producer has interesting consequences; for instance, the quality of service (QoS) is typically tied to a customer's (or set of customers') perspectives and experiences. That is partly why, trust and reputation are very important aspects of any service business, e.g., the reputation system of eBay's sellers and buyers.

What are some other key characteristics of services? Since goods are the "opposite" of services, an essential first-step in answering this question is to list the differences between goods and services. In general, the literature of services highlights four primary characteristics that distinguish services from goods. The lack of these characteristics in goods was initially thought to be the primary means of making the goods versus. services distinction (Fitzsimmons & Fitzsimmons, 2003, pp. 21-30):

1. *Inseparability*

1. Services are created and consumed at the same time
2. Services cannot be inventoried
3. Demand fluctuations cannot be solved by inventory purposes
4. Quality control cannot be achieved before consumption

Inseparability myth

- The ability to tailor and customize goods to the customers' demands and preferences means that many goods also have that inseparability characteristic.
- The customer is also involved in the evolution of many tangible goods (e.g., automobile, houses, and personal computers). The customer's involvement in tailoring the good to meet his or her needs suggests that goods (like services) also have the inseparability characteristic.

2. *Heterogeneity*

1. Because of the inseparability characteristic of services there are typically a wide variations in offered services from a customer's perspective
2. Personalization of services increases the heterogeneous nature
3. Perceived QoS vary from one customer to the next

Consideration, the Heterogeneity myth:

- Although services and their qualities are usually perceived differently from customers that do not automatically mean that there cannot be homogeneous delivery of some services. In many cases the perceived heterogeneity is due to the customer's tailoring or quality perception rather than the delivery process. For example, the homogeneous delivery of a university lecture to all students.
- The homogeneous perception of quality due to customer preference idiosyncrasies (or due to customization) can also benefit goods manufacturers. For instance, computer manufacturers (e.g., Dell and Apple) allow customers to specify their options at purchase time resulting in just-in-time manufacturing of heterogeneous goods that meet the customers' needs.

3. *Intangibility*

1. Services are ideas and concepts that are part of a process
2. Customer typically rely on service providers' reputation and the trust they have with them to help predict QoS and make service choices
3. Regulations and governance are means to assuring some acceptable level of QoS (e.g., Sarbanes-Oxley for the financial services sector)

Consideration, the Intangibility myth:

- Most services processes involve some goods which implies that services have a tangible characteristic.
- The focus should be shifted from whether there is a tangible representation (or outcome) to the services and instead toward the satisfaction expressed by the customer, i.e., whether the service created value for the customer with the correct quality attributes.

4. *Perishability*

1. Any service capacity that goes unused is perished, e.g., empty airline or theater seats
2. Services cannot be stored so that when not used to maximum capacity the service provider is losing opportunities
3. Service capacity estimation and planning are key aspects for service management, especially when demand fluctuates—that is, the ability to predict and meet surges in demands

Consideration, the Perishability myth

- “The claim that services cannot be stored is nonsense. Services are stored in systems, buildings, machine, knowledge, and people” (Gummesson, 2000).
- Customers that participate in some service process acquire knowledge which represents part of the stored service’s value.

Slide 17: Current Services Thinking

- **A service is a provider-to-client interaction that creates and captures value while sharing risks**
- **Services are value that can be rented**
- **Services are the application of specialized competences (skills and knowledge)**
- **Services are autonomous, platform independent, business functions**

Presented in this slide, as a general conclusion, are current ideas in exploring the question of “what are services?” that work towards creating a picture of what contemporary services are and their purposes in economic, technological, and social systems.

Part of the difficulty in defining services is that they have greatly expanded beyond business-to-consumer forms that we as individuals are familiar with (e.g., hospitality, professional services, entertainment, and government). Services with paramount economic impact are in the domain of business-to-business (where, in a very generic definition, business could be a business enterprise, government, or other large institution). That is, one institution providing services to another (client) institution and the service engagement results in value for both entities. These definitional ideas provide additional context and detail to the general Wikipedia (2006) definition presented in this module and are not meant as a replacement and include:

- A service is a provider to client interaction that creates and captures value while sharing the risks of the interactions.
- Services are value that can be rented (in the broad sense) by the application of some process that the renter (client) participates in. This is a contrast with goods, whose value (once purchased) is owned by the customer (Lovelock & Gummesson, 2004).
- Services are the application of specialized competences (skills and knowledge) through deeds, processes, and performances for the benefit of another entity or the entity itself (Vargo & Lusch, 2004a).

- Services are autonomous, platform independent, business functions that are described and published using standard description and publication languages (i.e., XML). They can be invoked remotely over different networks using standard protocols. Their purpose is to allow the creation of flexible applications and businesses.

Slide 18: What are some everyday services?

This and the next two slides (i.e., What are some everyday services?, Recipients of a Service, and Complex business services) are meant to be used threefold: (1) as summary of this module, (2) to spark conversation about “what are services?”, and (3) as a launching point into an activity to support learning.

- **Transportation**
 - Trains, planes, delivery
- **Hospitality**
 - Hotels, restaurants
- **Infrastructure**
 - Communications, electricity, water
- **Government**
 - Police, fire, mail
- **Financial**
 - Banking, investments
- **Entertainment**
 - Television, movies, concerts
- **Professional Services**
 - Doctors, lawyers, skilled craftspeople, project management

Provided on this slide is a small set of services examples categorized by industry. At first glance, many of these examples seem to be only business-to-consumer (or B2C) services, however taking a closer look, how can they be defined as business-to-business (or B2B) services? For instance, in one circumstance banking is a B2C service for people holding individual checking, savings, or investments accounts with a bank. Under other circumstances, banking is a B2B service when the bank engages in providing financial services to other businesses (e.g., loans or insurance). How might each of these be viewed as a B2C or B2B service engagement? Slide 19 (Recipients of a Service) is one tool that might help in identifying context within and around different types of service engagements.

Slide 19: Recipients of a Service

What is the service acting upon and how is it doing it?	People Processing	Possessions processing
Tangible Actions	Service is aimed at people's physical body	Service is aimed at material items
Intangible Actions	Service is aimed at people's psyche	Service is aimed at information

The nature of the service act (adapted from Lovelock, 1983, p. 15).

This classification tries to expose the nature of the service act by looking at two dimensions:

1. *Nature of the act*
 - a. *Tangible*

- b. Intangible
- 2. *Recipient of service*

- a. People
- b. Things

Examples of services upon the physical body, the psyche, material items, and information are as follows:

Body

- Travel
- Food
- Massage
- Exercise
- Beauty

Psyche

- Art
- TV
- Education
- News
- Church
- Consulting

Material Items

- Shipping
- House cleaning
- Trash
- Repairs
- Gas station

Information

- Banks
- Legal
- Insurance
- Programming
- Research
- Consulting
(note: different types of consulting may fall into other or multiple categories)

Slide 20: Complex Business Services

**Business Transformation and Optimization
On Demand Innovation Services
Center for Business Optimization
Component Business Modeling
Consulting Services
IT Services**

The material provided for this slide gives an example of what complex business-to-business service engagements are based on some of IBM's Business Transformation and Optimization services.

On demand innovation services

- http://www-1.ibm.com/services/us/bcs/html/bcs_ondemandservices.html
 - Rent a researcher
- New pharmaceutical manufacturing guidelines required new approaches to quality assurance
 - <https://domino.research.ibm.com/odis/odis.nsf/pages/solution.12.html>

Center for business optimization

- http://www-1.ibm.com/services/us/bcs/html/bcs_centeroptimization.html
- Business analytics and optimization
 - Logistics scheduling, pricing, risk balancing, market investments
- Insurance company wanted to decrease wrongful payments and increase worker productivity; fraud and abuse solutions and process improvements were implemented
 - <http://www-1.ibm.com/services/us/index.wss/casestudy/imc/a1011639?cntxt=a1008891>

Component business modeling

- Maps people, process and technology to value and select the blocks to increase differentiation and understand consumption of resources
 - http://www-1.ibm.com/services/us/bcs/html/bcs_componentmodeling.html
 - Used methods to map new services plans for a financial institution, with new IT architecture design

Consulting services

- Content management
 - <http://www-306.ibm.com/software/info/contentmanagement/>
 - Capture and manage data – for legal retention requirements
- Customer relationship management
 - <http://www-306.ibm.com/software/success/cssdb.nsf/CS/AMWR-65NRRJ?OpenDocument&Site=gicss67crm>
 - Mail, messaging, document management, process reengineering
- Digital media
 - <http://www-03.ibm.com/solutions/digitalmedia/doc/jsp/indseg/retail/index.jsp>
 - Security surveillance
- Enterprise resource planning
 - <http://www-306.ibm.com/software/success/cssdb.nsf/CS/HCTD-68JR3S?OpenDocument&Site=gicss67erp>
 - Acquisition consolidation
- Product lifecycle management
 - Lifecycle planning, design, engineering, analysis, implementation, etc.
 - <http://www-03.ibm.com/solutions/plm/index.jsp>
- Supply chain management
 - Procurement planning, ordering, managing, delivery, sourcing, forecasting
 - <http://www-03.ibm.com/solutions/businesssolutions/scm/index.jsp>
- Wireless
 - Hosted wireless instant messaging
 - <http://www-03.ibm.com/solutions/businesssolutions/scm/index.jsp>

IT services http://www-1.ibm.com/services/us/index.wss/gen_itservice

- Application development and systems integration
- Application management services
- Applications 'on demand'
- Business continuity and recovery
- Customized training
- Equipment buyback and disposal
- Infrastructure and systems management
- IT performance
- Maintenance
- Networking
- Outsourcing / hosting
- Packaged application implementation
- Security and privacy
- Service oriented architecture
- Storage
- Technical support
- Wireless

Activities

The following are exercises to aid in exploring, learning, and understanding the complexity of services, how services are defined, and how much they penetrate into our lives. These activities might prove suitable topics for essay or discussion.

1. Make a list of services that you use in your day-to-day activities and compare your common understanding and definition of these services against the definitions listed in this module.

2. Using the service definition from Vargo and Lusch (2004a), try to find a list of skills and knowledge for the following common services: movie theater, coffee shop, cellular phone networks, and PC repair shops.
3. Debate or discuss the notion of the limits of self-service. This could be a general debate based on all material learned or within the context of a current service notion (e.g., quadrants from Lovelock's matrix or the Vargo and Lusch definitions).
4. Try to find counter-example services in each quadrant of Lovelock's service classification matrices.
5. [Group] Discuss the consequences to industrialized nations such as the United States, United Kingdom, Canada, and so on of China's eventual shift to a service economy. What nation(s), if any, will most likely replace China as "the manufacturer to the world"? How will a shift in service delivery focus of one country impact other countries?
6. [Group] Discuss and agree on a common view of what B2B and B2C mean. Make a list of how they are similar and how they differ. Finally, identify examples of where B2B and B2C overlap (where do the two types of transactions meet or link into each other?).

References and Additional Readings

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