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LEADING IN SERVICE INNOVATION: THREE PERSPECTIVES ON SERVICE VALUE IN A EUROPEAN CONTEXT

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Leading in Service Innovation:

Three perspectives on service value delivery in a European context

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Résumé

Ce papier explore la relation entre formulation de “propositions de valeur” dans les services selon trois dimensions: “mix intangible”, “support physique”, et “valeur dans le temps”, et renforcement de la capacité d’innovation des organisations prestataires. La première section, qui introduit la problématique générale, est suivie d’une seconde ouvrant sur une série d’initiatives innovantes en rapport direct à la question de recherche, observées dans un contexte européen. Nous analysons comment JCDecaux travaille les bénéficiaires ultimes du service à la fois comme citoyens et comme consommateurs, avec une attention spéciale pour le projet Cyclocity. Avec CS2 Lawyers en Grande Bretagne, nous observons comment l’automatisation et l’adoption de technologie dans les services dits “professionnels” peuvent conduire à un véritable accroissement de productivité, profitable à la société dans son ensemble. Finalement, nous étudions comment la SNCF en France a réussi à mettre en œuvre une « proposition de valeur » au travers du lancement de l’initiative IDTGV, qui devient, de fait, un véritable laboratoire d’innovation de service pour le groupe ferroviaire. Dans ces situations, les prestataires de service ont clairement adressé leur marché en distinguant trois types de cibles en interrelation : les « bénéficiaires ultimes », les « clients payeurs », et ceux qui, sous une forme ou une autre, « prescrivent » la consommation des dits services. Dans ces trois situations, nous confrontons la robustesse des « propositions de valeur » ainsi mises en œuvre, et analysons le rôle joué par la technologie dans le succès de ces audacieuses expérimentations.

Mots clefs

Service et innovation, proposition de valeur, déploiement technologique

Abstract

This paper explores the relationships between the shaping of “service value propositions” according to three dimensions: “intangible mix”, “physical support”, and “time”, and the strengthening of Innovative Capability in service organizations. After the first introductory section, we describe a series of related innovative moves experienced in the European context by leading companies. We analyze how JCDecaux addresses service recipients simultaneously as citizens and consumers, focusing especially on the Cyclocity project. With CS2 Lawyers in the UK, we envision how automation and technology adoption in professional services may lead to significant productivity improvement for the good of society. Finally, we study how SNCF in France has succeeded in implementing a permanently strengthening value proposition in public service through the recent launching of the IDTGV initiative. In these situations, the service companies have clearly addressed their market considering three different forms of interrelated, yet distinct, targets: “ultimate beneficiaries”, “paying bodies”, and entities or individuals who somehow “prescribe” the consumption of services. In these three situations, we investigate the robustness of the “value propositions” thus implemented, and analyze the particular role played by technology in the success of the new ventures.

Key words

Service and innovation, value proposition, technology implementation

JEL classification: M13

Leading in Service Innovation:

Three perspectives on service value delivery in a European context

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1- Understanding the Growing Importance of Innovation in Services

In general terms, service operations are defined as those which provide value through information, time savings, desired psychological states or experiences or changes in the physical attributes or property. Services are produced by producers acting for recipients; or recipients providing part of the labour; and/or recipients and the producers creating service in interaction[2]. Services are often referred to as the reciprocal of manufacturing because of the importance of labor in the total cost of most of service outputs, as opposed to that of materials in tangible goods. Service activities account for roughly 80% of total employment in the US, the Netherlands, the United Kingdom and Sweden; the situation in France reaches 70% while Japan, Germany, Italy and Spain are closer to 60 to 65%[3]. Demand for services shows no sign that it will stop growing. Knowledge based services, such as education, consulting, health care or legal, are still dramatically expanding worldwide. Transportation, warehousing, and materials handling services are an industry under restructuring with the creation of huge multi-purpose global logistics providers such as UPS, Deutsche Post, PNG, among others. Direct support and care activities to home and families also constitute a fascinating segment of recently growing service business. Merry Maids started in Denmark in 1995 providing maid services to Scandinavian households, as a subsidiary of the Chicago based "Service Masters Co.", a company that employs 30 000 people and attained almost five billions US dollars of sales in 1999. The Canadian firm Molly Maids runs a 6000 employees operation for serving Montreal alone. Similar companies are rapidly expanding all over Europe. For instance, examples of successful such firms in Geneva, Switzerland, include Ewi hairdresser, Sitex home hospital, or Qualipet home meals for pets[4]. In France, INSEE, a government body in charge of statistics, claims that 800'000 jobs have been created in this sector during the last ten years.

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[1] Institute for Service Innovation and Strategy, ESSEC Paris-Singapore, www.essec-serviceinnovation.com, mathe@essec.fr, tel. + 33 1 34 43 28 29, Avenue Bernard Hirsch, BP 50105 Cergy, 95021 Cergy Pontoise Cedex France

[2] Riddle D., *Service-led Growth,* Praeger, New York ,1986.

[3] Gardey J., Critique du paradigme industrialiste, in: *L'Innovation dans les Services*, ANRT-Economica, Paris, 1999.

[4] Scaramiglia V., Zutter P., Les services se lancent chez le particulier, *PME Magazine*, March 1999.

Customer Service, in its own term, is also naturally credited with growing importance in a society dominated by the consumption of intangible value. For instance, the magazine Business Week introduced in March 2007 its first-ever ranking of client-pleasing brands. Focusing mainly on the American market, the list of outstanding customer service provider includes: auto and home insurance company USAA only open to military; luxury hotel chain Four Seasons; auto maker Cadillac; retailing firm Nordstrom; as well as UPS; Starbucks, Southwest Airlines; Porsche; or Apple among others[5]. Examples of best practices include the 100-year-old insurance company Amica Insurance that does treat customers like family: When serious weather such as a tornado strikes, Amica proactively calls each customer it hasn't yet heard from. Three realities have intensified the importance of customer service in the past ten years:

- The rapidity of technological change and the resultant decrease in product life cycles creates a difficult task for delivery service and after-sales support organizations. Uncertainty in the demand at launch time, frequent changes in spare parts, in the technological skills and training required, in processing orders, installing, operating, and maintaining equipment are all a reality. It also makes it more difficult to adequately forecast customer behavior and consumption of parts as well as the needs for updated subsystems.
- It is increasingly difficult to satisfy the needs of specific and often quite different customers such as for instance, in the medical equipment industry, a modern hospital in Zurich and a developing country emergency health center, or an individual professional in Boston as well as the British army medical corps. This requires not only a range of dissimilar tangible products, but also the definition and delivery of a variety of different services – often based on idiosyncratic relationships with these customers. Customization of companies' responses is currently expanding in all type of manufacturing or service companies.
- The management of service activities in the international arena multiplies the interfaces to be managed, the different service and quality level requirements, as well as the variety of economic and competitive situations.

The expansion of services certainly stands as the most significant business trend of the past three decades. Western economies continuously add new positions in services but regularly shed jobs in manufacturing. Wealth is also created in the service economy, thanks to the "capitalization of innovation", in a manner very similar to the one experimented by the manufacturing industry all over the nineteen and twentieth centuries. In a study carried out primarily in North-America, the consultancy Bain has reveled that from 1995 to 2002, the leading two hundred service companies increased in market capitalization by fifty per cent more per year than the top two hundred so-called "product" companies, in both rising and failing markets[6]. Innovative service strategies are now established on the basis of structured approaches; they materialize in terms of new or redefined "service products", improved delivery processes, and refined organizational structures. Thus den Hertog identifies four "dimensions" of service innovation that would frequently be combined in most practical cases; they include: the Service Concept, the Client Interface, the Service Delivery System, and the Technical Option[7]. The Service Concept refers to a "new value proposition" that might involve fairly intangible characteristics of the offering or, alternatively, new ways of organizing solutions to problems[8]. In general, service delivery processes distinguish "front-stage" activities where most of the management of the client interface is undertaken, and "back-stage" operations not in contact with the recipient[9]. Services rely on the deployment of knowledge, skills, and competences for the benefit of a person or an organization[10]; and they frequently require substantial input from the customer or client[11]. A new field of study, known as "Service Science, Management, and Engineering", has recently emerged trough several forums and conferences. The term has initially been introduced by IBM to describe the interdisciplinary approach to the design and implementation of services systems[12]. While service system itself might be described as a "*dynamic value co-creating configuration of resources, including people, technology, organizations and shared information, all connected internally and externally by value propositions, with the aim to consistently and profitably meet the customer's needs better than competing alternatives*"[13]. In a sense, the all economy seems to turn into some sort of a gigantic service system, in which traditional manufacturing finds its own paradoxical legitimacy as supplier of the key physical supports still essential for the consumption of most service propositions. Today, a massive proportion of consumers show much more interest in the way a purchased good or service will satisfy their needs, than in the physical traits or technical performance of the goods and services themselves[14]. Then, innovating in services, or through services in manufacturing industries, prove of paramount importance since what is at stake is the ability to align the entire value producing mechanism of any company to a rapidly changing, consumer centric and information intensive, always more challenging business environment. In an introductory report to its ambitious 2006-2010 “Innovative Services Technology Programme”, Tekes, the Finnish funding agency for technology and innovation, suggests a definition of the notion of service innovation as a “*new or significantly improved service concept that is taken into practice. It can be for example a new customer interaction channel, a distribution system or a technological concept or a combination of them. A service innovation always includes replicable elements that can be identified and systematically reproduced in other cases or environments (…) a service innovation is a service product or service process that is based on some technology or systematic method. In service however, the innovation does not necessarily relate to the novelty of the technology itself but often lies in the non-technological areas*”[15].

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[5] Customer Service Champs: A Special Report. J. McGregor, BusinessWeek, March 5, 2007.

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[6] Sarabjit Singh Baveja, Jim Gilbert, and Dianne Ledingham, From Products to Services: Why it's not so simple. *Harvard Management Update,* April 2004.

[7] Den Hertog, P., Knowledge-intensive business services as co-producers of innovation*, International Journal of Innovation Management*, December 2002, Vol;4.

[8] Edvardsson, B. and Olsson, J., Key concepts for New Service Development, The Service Industry Journal, 1996, Vol. 16. and Edvardsson, B., Quality in new service development: Key concepts and a frame of reference, The International Journal of production Economics, 1997, Vol.52.

[9] Teboul, J., Service is Front Stage*, Insead Business Press*, Fontainebleau: 2006.

[10] Andersen, B. et al (eds), Knowledge and Innovation in the New Service Economy, *Elgar*, Cheltenham: 2000.

[11] Sampson, S., *Understanding service businesses*, John Wiley, New York: 2001.

[12] SSME IBM Research, and Service Research & Innovation Initiative(SRII) Web sites. SRII have been founded by Oracle, SSPA, and TPSA, together with IBM. Xerox, Micosoft, Sun Microsystems, HP, and Unisys also collaborate to the initiative.

[13] IfM and IBM, *Succeeding through Service Innovation, A discussion paper*. Cambridge Service Science, Management and Engineering Symposium. University of Cambridge Institute for Manufacturing, 14-15 July 2007.

[14] Dong-Sung Cho, Four Phases of the Design Revolution: expanding the design domain and developing design theory; In *Designing Information and Organization with a Positive Lens, Advances in Appreciative Inquiry*, Elsevier: Vol 2, 2008

Defining the mix of services to be provided requires the understanding of customer needs throughout the entire lifecycle of the customer/supplier relationship. To be successful in providing those services, management must recognize that service is a corporate-wide activity, mobilizing enabling technologies and requiring careful cross-functional coordination[16]. Every functional division has a critical role to play. Inadequate balance between service function “integration” relating to coordination, and “separation” relating to specialization, creates conflicts among the different parties involved in the “service value chain”, i.e. marketing, research & development, production and delivery, commercial distribution, customer support. Manufacturing focused companies that are expanding their offerings toward more services do not always meaningfully outperform their “pure play” product counterparts in terms of revenue growth, stock performance, profit margins, and return on equity[17], precisely because of their difficulty to establish the right balance. Currently, service is definitely strengthening its preeminence as the key economic activity that is driving growth, and new and successful service firms are flourishing everywhere. Also, technology, and especially the Internet Protocol system, finally provides service organizations the resources for elaborating radically different way to engage customers, generating the multiplication of emerging business models[18]. Companies have been using some sorts of networks for decades[19], but today’s networks are offering dramatically new opportunities to service businesses. A new connected world has formed from fundamental changes in the information and communication technology (ICT) industry. Whereas once businesses operated separate networks for voice and data, those networks, along with video, are now converging in a way that eases obstacles to competition and provides opportunities for a wealth of new services[20]. As a consequence, service organizations are also using relatively new approaches to manage their operations: national and international distribution of services via the internet, sometimes with the support of “intelligent agent” technologies; exploitation of the customer-service support potential of suppliers and sub-suppliers; relocation of back-office activities, as well as outsourcing of support functions; outsourcing of knowledge-based services and activities, such as strategic project management[21].

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[15] Tekes: Finnish funding agency for technology and innovation (http://www.tekes.fi/eng/)

[16] Mathe H., Shapiro R., *Integrating Service Strategy in the Manufacturing Company,* Chapman & Hall, London, 1993.

[17] Sarabjit Singh Baveja, and all, 2004, Op. Cit.

[18] Karmakar U., Will You Survive the Service Revolution? *Harvard Business Review*, June 2004.

[19] Manuel Castells. The Rise of the Network Society. Oxford, Blackwell Publihers Ltg;, 1996, revised edition 2000.

In the context of the present discussion, we focus on the relationships between the shaping of the “Service Value Proposition” according to three dimensions: Intangible Mix, Physical Support, and Time, and the strengthening of Innovative Capability in service firms. The following section of this paper first describes a series of significant innovative moves experienced by leading service organizations operating mainly in the European context. We investigate the robustness of the “value propositions” thus implemented and analyze the particular role played by technology in the success of the new ventures. Then, we explore how certain decisions regarding organizational structures, workplace architecture, and fast emerging service off-shoring can be made in order to enhance the ability of service firms to constantly innovate and strengthen their competitive position.

2- Deploying Innovation and Reinventing Service Businesses

Innovation may actually reinvent the service firm based on the delivery of totally new customer experiences. In less than ten years, Expedia in the travel organization business has taken over the leadership that was nurture by American Express for almost one hundred and fifty years; previously ClubMed has introduced a radically new vacation concept that revolutionaries the tourism industry; while McDonald’s and the followers certainly rewrote the roles of the restaurant business. Relevant examples can be found in any service industry. The cases we are discussing below don’t carry out similarly dramatic significance. However, they illustrate contemporary aspects of innovation in services in relation with the three dimensions of the “service value proposition” as introduced previously.

JCDecaux: Addressing Service Recipients as Citizens and Consumers

In 1964, a new company was launched in France by Jean-Claude Decaux with the innovative concept of providing bus shelters to cities, free of charge, funded entirely by first-class advertising. Next, it introduced city-plans display on advertising panels and, then by 1976, the first time-share of multi-brands panels is experimented in Italy. By 2006 with a turnover of Euros 1,906 millions, JCDecaux Group employs almost 8000 people in about 50 countries in the world. The company is the number one outdoor communication specialist in Europe and Asia Pacific, and number two worldwide after the American group Clearchannel. JCDecaux stands as the global leader in urban furnishing, mostly bus shelters and the like, with 318,000 advertising panels in 36 countries; as well as in Airport advertisement equipping 153 locations with more than 200,000 panels. On top, it is also the number one large-billposting displayer in Europe, with 200,000 spots in 29 countries[22]. Over the years, innovations never ceased to be introduced at all level of the business. The company's superior ability to craft customized communication solutions for its clients led to the creation of a subsidiary called "JCDecaux Innovate", a specialised firm that offers "in-depth knowledge of innovative outdoor solutions and technologies and can be used to help create bespoke outdoor solutions tailored to achieving brands' advertising objectives". For instance, the unit build a gigantic Louis Vuitton styled briefcase, more than four meters high, for display in the Hong Kong International Airport, while shaping a series of bus shelters in Thailand to look like Caltex gas stations. Given the growing density of city population worldwide, JCDecaux hearing constantly increases, and more visibility the company obtains in a given populated area higher the rate for the use of its display panels. However, winning the licences for advertising in large urban dwelling has proved a challenging task; it requests constant innovation aiming at offering always more and better perceived services to citizens and public authorities. A delicate balance has to be established between the quantity of free services delivered to ultimate beneficiaries and the scope of the advertising possibly displayed and then sold to commercial brands. Innovation materializes through permanently extending service offers delivered to cities and citizens, but also in terms of growing attractiveness of the communication support provided to brands and consumers. The company perfectly assimilates the double nature of the targeted service beneficiaries, both local citizens and regular consumers.

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[20] Gustafson P., and Koff W., *Connected World: Redefining the geography of business and how we work and play*. Leading Edge Forum CSC, El Segundo, 2006.

[21] Engardio P., The Future of Outsourcing: how it’s transforming whole industries and changing the way we work. Special Report, BusinessWeek, January 30, 2006.

Technology has played a key facilitating role in the deployment of the company's innovative business model, and that from the beginning of the JCDecaux adventure, more than forty years ago. In Paris in conjunction with RATP, the company in charge of most public transportation for the capital city, a series of Internet booths have been erected all over the place allowing urban travellers to read (92% of users) and write (64% of users) e-mail messages as well as free access to other services. A recent survey has unveiled a rate of 80% satisfied users, and they interact with the system a minimum of once a week. For the specific need of airport communication to the passengers, the company has created the Aéo concept, based on the deployment of networks of extra large flat TV screens that display general information, documentaries, sport shows, etc. as well as constant updating data on airport and airlines activities. Usually located in waiting areas, they have been designed and decorated to perfectly feet with their direct environment[23]. Interactive marketing is now considered at the next generation of dynamic advertisement, despite the still not all resolved technical glitches. Bus shelters are starting to communicate with citizens on city directions, local attractions and weather. Mobile phones devices, equipped for Bluetooth connections, constitutes the ideal vehicle for permanent urban communication. For the Lancôme perfume brand, JCDecaux has experimented an interactive display panel from which anyone may download songs, advises and product description by pointing Bluetooth mobile phone device to a red dot on the poster. When Microsoft launched its XBOX videogame system, the company equipped the Champs Elysées Avenue in Paris with a series of large panels with game consoles on free access. As recall by Microsoft representatives: « We had the possibility to launch an outdoor advertising campaign in France and we wanted to make a splash: something customized and interactive! France is the only country where we are bringing a video game console to the street"[24]. Given the growing importance of issues regarding safety and environmental concerns on the agenda of politicians, the company crafted several technology-based new services in order to attract the attention of city representatives. A device, called the "Pollumètre", is already in operations in several crossroads that display in a quite visible fashion the local level of CO2 and other gas pollution in the air and that for 24 hour in a day. Since almost four thousands pedestrians a year get injured in France, a speed control system is provided by JCDecaux to be posted at sensitive places, such as schools or sport centres. The speed of any vehicle is automatically checked a first time and the information is displayed on a panel in the street; and then a second radar device located a little closer to the particular area under surveillance and linked to an even more visible screen, checks the speed for a second time. The system has been patented in 25 countries already. But CycloCity certainly stands as the most popular recent move of the company into the world of environmental conscious service innovation.

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[22] Company's executives interviews, 2006-2007.

Cyclocity®, a user-friendly bicycle renting service for cities created by JCDecaux, was first experimented at a limited scale in Vienna, Austria, and Cordoba, Spain, in 2003, and then expanded to Gijon, also in Spain the following year. "*CycloCity®, It's all about service, not just a bicycle"* claims the company. It is said to be easy to use, ecological and healthy, available 24 hours a day, 7 days a week at many renting stands. Ideal complement to public transport, the renting system looks simple and cheap to use. In May 2005, the service was launched in Lyons and locally perceived as some sort of an urban revolution. 40,000 local dwellers subscribed the service in the first three months, getting access to 2,000 bicycles and 175 cycle racks. After one year in operations, Cyclocity boasted the following statistics:

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[23] B. Kientz, JCDecaux : la technologie et les systèmes d'Informations au service de l'innovation, ANVIE working group on service innovation (H. Mathe, coordinator), Paris, 15 December 2007.

[24] A. Vasseur, Head of Microsoft XBOX Marketing & Communication, ibid.

average journey time of 17 minutes for an average distance covered of 2.6 km (1.7 miles), and turnover rate by bicycle from 12 to 15 per day. In October 2005, the system was greeted by the “Bicycle Trophy” from the Congress of towns open to bicycles; in December it was awarded the “Usine Nouvelle Prize” as Engineering of the Year; and finally it received the “Janus de l’Industrie” awarded by the French Design Institute in February 2006. In 2007, undertaking the challenge of deploying a similar concept for Paris in only five month, JCDecaux moved significantly upward and soon became the leading bicycle renting service company in the world. Velib, the complex organization implemented in the French capital city during the summer of 2007, started with 10,000 bicycle and 750 stations in August and doubled the figure by the end of the year. Given its immediate and huge success, Velib have to assume more than 200,000 individual journeys a day, and is credited for significantly reducing the traffic pressure in this very dense urban area. However, issues of reliability and availability of bicycles deserve tremendous attention since the City authority monitors the performance of the venture mainly on these criteria. Technological resources are massively harnessed in order to streamline the customer’s service experience. Self renting process at station relays on credit card payment or the use of universal public transportation pass (Pass Navigo) or of Velib Card. Although Ingenico, an independent specialist company, houses the payment process clearly separated from the renting operations for safety reasons. Historical data on payment are systematically destroyed after four days in order to cope with regulations on protection of individual privacy. Each bicycle carries an RFID chips that automatically convey key information on its state of functioning to the central system, through the closest station it happens to be in contact with. Maintenance operations and bicycle replacement are then monitored by the system. Station are equipped with web terminals for the communication to the citizens who might have checked before from home, or with their mobile phone, on the location of stations, availability of services, or destinations of particular interest. The organizational structure of the JCDecaux group has evolved due to the very rapid development of the new line of business. A new general directorate for research and operations has emerged and drives a transversal innovation committee involving the marketing and finance departments as well as the information system division. Together with the IS division this directorate promote the standardization of the technology abroad. The commercial departments in charge of individual cities prepare the submission to public authorities with the support of the centralized technical functions, and in full coherence with the different sides of the group’s activities.

CS2 Lawyers: Automation and Technology Adoption in Professional Services

Recognized among the top one hundred law firms in the United Kingdom, CS2 Lawyers Limited is one of the fastest growing service companies in the British Islands[25]. Having quadrupled in size from 1998 to 2002, this professional service firm employed over 260 people by 2007, mainly located in its hi-tech offices complex completed in 2004 in Chesterfield, Derbyshire. Founded in 1975 as Cutts Shiers Solicitors, a traditional small and local law service partnership, the firm developed an embryonic concept of legal coverage for road accident as early as in 1993. Ian Burns joined the company in 1993 as a junior solicitor and rapidly climbed the stairs reaching the rank of managing director by 1996 after drastic restructuring of the small organization. By 1999, having freed itself from the historical partnership, the management teams decided to shut down all departments but the motor claim unit and focused on a high-volume only strategy based on an automated product. The company changed its name in 2000 to project a uniquely consumerist approach to the quality delivery of telephonic, and then web-based, services to a nationwide client base[26]. Since, the firm has actively diversified into other consumer law services including: vehicle fleet accident management with Fleet Legal, provision of legal expenses insurance with E-Claim, and medico-legal reporting agency with Medirep Marketing[27]. Aiming at strengthening the financial capabilities of the firm in order to achieve an ambitious new phase of its development strategy, the managing team engages in a negotiation with external partners by late 2006. In August 2007, Helphire Group PLC announced it has entered a commercial agreement with and has acquired the CS2 Group of legal services businesses. Launched in 1992 to help motorists involved in accident, the Bath headquartered company achieved a £290.0 million turnover in the fiscal year ending in June 2007, with an increase of its profit before tax by 63% reaching £40.3 million for the period. Through the acquisition of the CS2 Group, Helphire is expecting to strengthen its presence as a European market leader in non-fault accident management assistance and related services such as replacement transport and motor claim management[28].

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[25] Company website: www.cs2lawyers.com

Considered as a major innovative force in volume personal injury and road accident claims, the company developed a pioneering approach to file handler self-sufficiency through highly sophisticated case management systems and direct e-mail facilities. As defined by CS2 Lawyers, the client benefits provided by the firm include: a direct dial facility for immediate access to a Lawyer with extended opening hours, an interactive Website allowing clients to monitor the progress of their claims, home visits and free-phone facility, regular updates via email, phone, text messaging or post wit direct e-mail facility, and finally a service quality performance regularly monitored. By addressing the legal system as a process and automating tasks that previously were perceived as very labor-intensive, CS2 Lawyers significantly reduced the cost of managing the cases while simultaneously enhancing the quality of the service delivery. One of the first company in Europe to fully embrace the systematization of legal process by intelligent use of IT the firm's quality system have been

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[26] Interviews to CS2group executive management team, Chesterfield, November 2007

[27] Group website: www.cs2group.net

[28] Helphire acquires CS2 Group, Insurance Times, 14 August, 2007. www.insurancetimes.co.uk

ISO accredited as early as in 1995 and have substantially overhauled in 2001 to comply fully with the stringent ISO 9001:2000 standards. Automating the process allowed the organization to move the volume with little additional operating cost impact. A series of sophisticated software programs were developed internally to get greater control over documents, leading to the establishment of QSIT: a specialized IT service provider mainly devoting its resource to the permanent upgrading of the group automating capability. By defining and setting new standards of service delivery CS2 Lawyers has captured significant market share in the first five years of the decennia, securing an impressive portfolio of claimant referrals from all major UK motor and legal expense insurers. The company also undertook significant volumes of outsourced insured loss and self-insured fleet recoveries and has seen significant increases in instructions from a number of British insurance brokerages since 2001. A winner of a National Training Award in 1998 and a recognized "Investor in People" the firm has been successful in training top-quality personal injury lawyers through its comprehensive in-house programs. In 2001, it became an accredited Institute of Legal Executives Training Centre. The management style, translated into the specific design orientations of the fully owned –through the company pension fund system- offices complex, proves not hierarchical and almost "anti-elitist": a sharp contrast with the traditional Law firm's atmosphere. Ian Burns and his partner would explain the organization's chemistry as being a combination of processes under control and open space to express intuition and creativity, a most modernistic approach but with a remaining paternalistic flavor.

IDTGV: A Permanently Strengthening Value Proposition in Public Service

In 2001, SNCF, the French railways system, launches TGV Méditerranée: a 3 hours high speed train service from Paris to Marseille in the South of the country. Its market share against car and air services significantly grows until 2003, when two low-cost airlines establish service on the same destination. In reaction, SNCF develop a new concept in 2004 called iDTGV. Although the objective remains to compete efficiently, the company aims at establishing the new operating system as its key laboratory for service innovation[29]. Since 1991, the European Union addresses the question of the liberalization of the community railways systems. In 2001, a first set of recommendations defines the future framework for a free access to railroad transportation provision. Competition on the cargo rail transportation is effective as early as March 2003 while direct competition in passenger rail transportation materializes by January 2006. In 2004, when the iDTGV concept emerges, SNCF is fully involved in a process to equip itself for a future competitive environment on its own network, especially for the very prized sections linking the capital to the popular southern destinations: Bordeaux, Toulouse, Montpellier, Marseille and Nice. In the sky, Air France, profitable since 1997, already operates similar lines in growing competition against newly established Easy Jet and Ryan air. Previous to the Anglo-Saxon operators, Air Lib and then Aéris have unsuccessfully tackled this market leading to the bankruptcy of both companies by 2003. The image of the high speed train system, identified as TGV in France, proves strong since the technological device has won world award for speed and safety[30]. However, apart for speed, SNCF doesn't seem to be recognized for its care for passenger experience. At the beginnings of the 2000's, decision is made to develop service innovation as an absolute priority. Among the many initiatives taken at the time, a direct Internet-based booking channel, Voyages-sncf.com, is launches in 2000. It quickly becomes the first commercial Website in France through which 12% of the company turnover is generated by 2004, and then 30% by 2006[31]. An "eco-comparative assessor" is offered online in October 2006 allowing travelers to compare total cost and CO2 emission performances for train, aircraft and car based transportation on multiple sections. Efforts also take place for the refurbishing of the train stations, as well as for the redesign of a "premium service" package for selective first class travelers. Negatively perceived by the company's sales force and poorly received by the market as elitist -both employees and customers proving sensitive to public service values- this service will be stopped by the end of 2002. As a learning experience however, this initiative is credited of having played a key role in the development of the IDTGV concept.

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[29] Interviews to Maria Harti-Bouri, managing director IDTGV SNCF, October 2006

The first IDTGV train runs form Paris to Marseille on the 6th of December, 2004. The design of the customer experience has been designed in record time by a specially established business unit aiming at generating operating margin. On board, the traveler may choose between two types of atmospheres: iDzap, a lively environment with video games provided in partnership with Sony, DVD and MP3 player renting services, playground for children, etc., and iDzen, where silence is guaranteed, with sleeping package and other relaxation suggestions. Customers book, pay and issue tickets through the Internet only and pick the location of their seats according to their mood. The website also provides touristy information, addresses, weather reports, etc. An ID Fan part of the site allows for additional information such as printable games for the trip, free downloading of documentary films, etc... IDTGV cars are doubled decked allowing the accommodation of 580 passengers per train compared with 330 with a usual TGV. IDTGV train are also linked up with regular high speed trains, to reduce operating costs. There is no ticket control onboard; the food menu, called ID Zinc changes every four months; a selection of books and magazines are available form the bar. Extensive market analyses have been conducted to understand and anticipate customers' expectation in the targeted segment. Unexpected results have emerged from behavioral observations. For instance, the team realized that 80% of the IDTGV customers are traveling by themselves; most of them appreciate company but don't dare to take the initiative of communicating with fellow passengers. A new Internet based connecting service, called IDTGVandCO, is then made available for a small fee in June 2006 for people willing to contact other passengers, exchange skills or practical information, and possibly fix meeting onboard before departure[32]. Following a similar intuition, KLM, a Dutch airline and member of the Air France group of companies, will launch a comparable service on the Amsterdam-China lines several months later. Now serving more than a dozen of destinations, IDTGV come with low fare, but the company insists on not being perceived as a “low cost” provider since emphasis on service quality is real. In a survey carried out in 2007, 90% of customers display satisfaction in the use of the Internet to prepare for the journey; 80% enjoy the contact with the welcome team and onboard employees; 75% value the possibility of booking tickets as early as four months in advance; 49% of the passengers who have decided for the iDZAP sections are very satisfied with the entertainment series onboard. In 2005, the “innovation committee”, in charge of building future services for the all group based on the IDTGV learning, decided to extend the booking period from 2 to 3 months for all the other SNCF trains; then to generalize DVD renting in regular TGV by 2007, among other measures. Extensive training aiming at communicating the positive IDTGV attitude to customer is also provided for other trains onboard personal.

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[30] 380 km/hour in 1981, 515 km/hour in 1991, 300 km/h for daily commercial service. Company's information.

[31] C. Chavanel and al. Etude du cas IDTGV. Working paper ISIS-ExecMBA, Essec Buisness School, Paris, October 2007.

One of the first examples in the railways industry of an “e-service”, as defined by Rust and Lemon in 2001[33], IDTGV rely on two key mechanisms to succeed. First of all, a permanent relationship with the customers is established that allows for frequent satisfaction surveys and co-refining of the offerings. Second, the personal onboard is also considered as an internal customer and its proximity to the travelers is harnessed for testing new concepts and discussing the results. In that sense, the company moved from a “one-to-many” approach to a more powerful “one-to-one” relationship; from a ”firm-to-customer” posture to a richer “customer-to-firm”; and then toward a “customer-to-customer dialog” and “customer control”. This particularly synergetic posture has led to the IDTGV team understanding that service offering should never be congealed, relationship to market permanently evolves and that might sound difficult to admit in an highly capital intensive industry such as railways. Any Service offer need to be constantly upgraded and modified to generate a right feeling of ownership on the customer side. The dedication and commitment of the personal in direct contact with customers has proved a key to the success of this adventure.

3 - Developing Cross-Functional Coordination in Service Innovation

There are several communalities in the way these very different companies in distinct service industries address innovation. Further analysis of situations, such as Triselec in Lille,

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[32] M. Harti-Bouri, Une offre de voyage innovante au service du client. In H. Mathe (ed.) : L’innovation dans les services, perspectives et strategies . Paris, 2008 : ISIS ESSEC Publishing.

[33] R. T. Rust and K. N. Lemon, E-Service and the Consumer, International Journal of electronic Commerce, 2001, Vol.5, N° 3

Nespresso in Lausanne, Maximiles or RATP Pass Navigo in Paris[34], would bring to the fore additional evidence of emerging patterns for the design of new service value propositions. First, many successful innovative service companies address the market considering three different forms of interrelated, yet distinct, targets: ultimate beneficiaries of the package whose willingness to enter the relationship is key, paying bodies who inject most of the financial resources in the system, and entities or individuals who somehow “prescribe” the consumption of the given services. City users directly benefit from JCDecaux series of services, while advertisers entirely cover the cost, and city authorities “prescribe” beneficiaries’ access to the value when awarding exclusive license in a given geographical area. CS2 Lawyers works efficiently to provide time responsive and information rich legal support to motorists who benefit from the service, however the expenses are taking care of by insurance companies who save on administrative costs as well as enhance customer satisfaction. Maximiles provides benefits to end consumers who collect miles from multiples sources and convert their earnings into gifts or free services; for managing this multi-brand loyalty program the company get paid by the brands managers. Triselec that specializes in selective trash conversion while offering jobs to non-qualified people to help returning them to the job market, could not operate without the agreement of local and regional authorities. Financial resources are obtained thanks to the sales of selected items of recyclable value while the ultimate beneficiary involves itself into trash sorting at home and office in order to participate to what is perceived as an act of responsible citizenship.

By understanding the importance of simultaneously addressing the distinctive needs of the three levels of appreciation of the service, innovative service companies deploy effort to balance and possibly maximize the perceived value provided to each of the categories of players, even if their interests not always converge with one another. Citizens don’t necessarily cope well with intrusive advertisement on urban landscapes, while brand owners want highest possible return on their marketing investment. Members of multi-brand loyalty programs may want to favor a certain set of rewards that may weaken the position of some of the players in the network. Thus, a significant proportion of the value produced by these innovative service companies precisely focus on optimizing the “paying bodies” financial effort. Quantities of additional examples from other parts of the world could certainly be added to this list, including the well acclaimed Google business model based on smart advertising. However, given the particular importance in the agenda of many consumers in Europe, as well as decision makers, of issues such as regulations, public authority, social responsiveness, and others, the sensitivity to the multi-level/multi-dimensional provision of value seems well seeded amongst service companies managing teams in the region.

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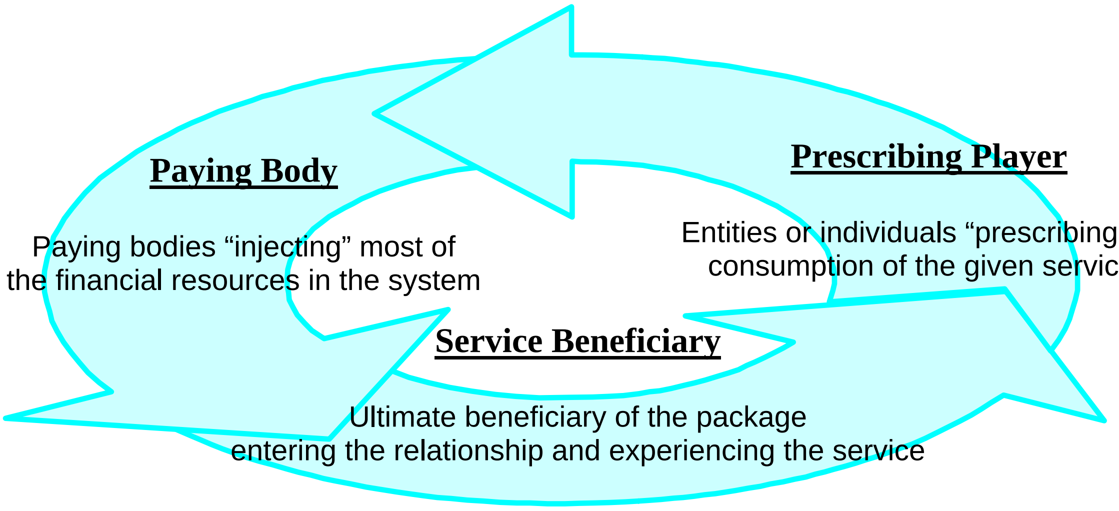
[34] H. Mathe (ed.), 2008, Op. Cit.

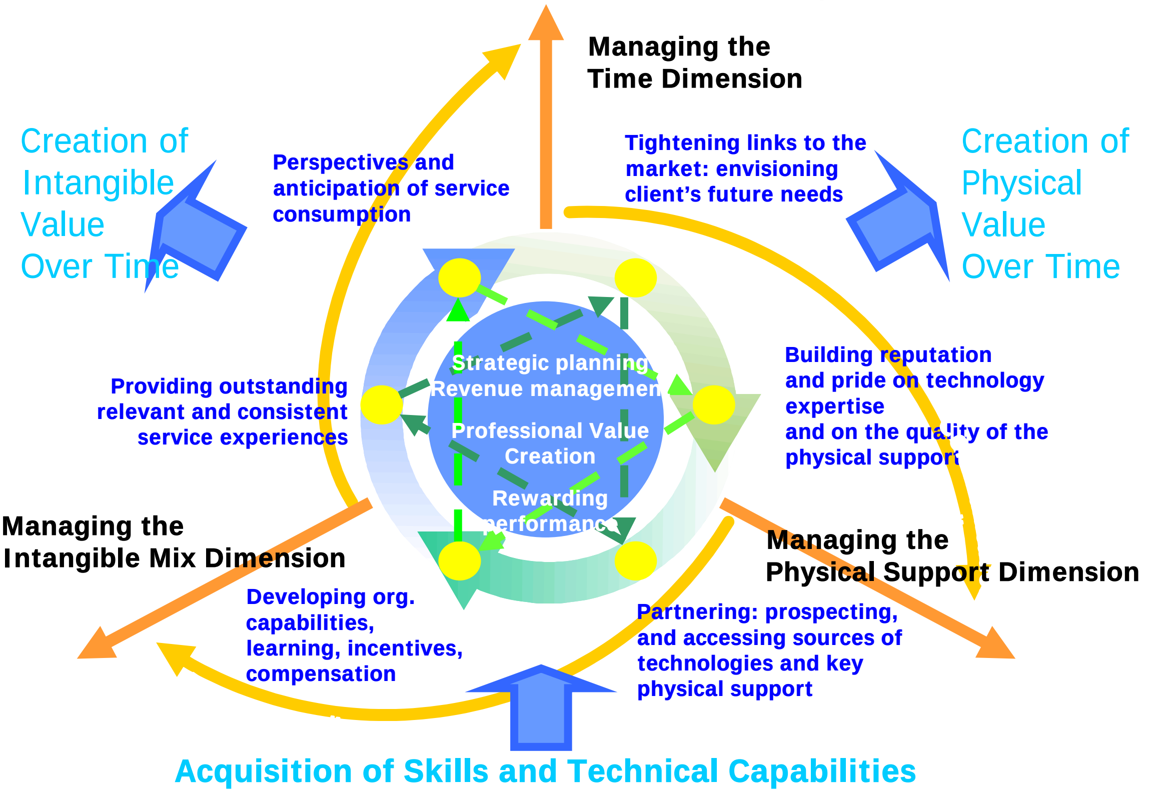
Exhibit 1
Three Distinct Receivers of Service Value


Paying Body
Paying bodies “injecting” most of the financial resources in the system
Prescribing Player
Entities or individuals “prescribing” the consumption of the given services
Service Beneficiary
Ultimate beneficiary of the package entering the relationship and experiencing the service

Since the mid-eighty’s, a worldwide change in concept has been observed, in an effort to obtain competitive advantage based on a wider view of a service content of any sort of offering to market. In manufacturing activity, faced with declining margins in many industries, it has proved essential to find new ways of reconstituting profits by providing a new concept of advanced customer service in addition to the sale of tangible product. In many traditional “service” businesses, the provision of more sophisticated physical support has mobilized significant energy in many leading organizations. The separation between manufacturing and the service sector is currently closing. Manufacturing seems increasingly to follow the lead of the service sector: customer service is getting more important every day and products are often tailored to the needs of customers, through “mass customization” or “late differentiation” production systems. On the other side, direct contact between provider and customer may be unnecessary in many service activities; and some services can actually be held as inventories and traded internationally. Service response logistics, as a part of the customer service function, involves all of the activities in taking and recording customer orders, scheduling personnel and equipment to make service calls, and executing service calls in an efficient way. Sophisticated information and communications systems are often used to assist in these processes. Service excellence is typically a large component of the marketing mix with commensurate focus placed on it by management, either in manufacturing or in typical service companies.

A set of tangible products or physical support, a mix of intangible services associated with them, and the management of the relationship of the two over time, as customers’ needs and the environment in which the product is used change, constitute the three dimensions that together fully define the complete “enhanced value proposition” of any company. To be successful in this endeavor, the company's management should understand that service, even in so called “manufacturing”, is always a corporate-wide activity that requires inter-functional coordination in both life cycle analysis and in carrying out the myriad of necessary activities. Defining a robust service innovation requires the integration of the service dimension as a component of the company's offer to the market in each life cycle stage of the beneficiary/provider relationship. Finally, technology provides the resources needed to actually put the "enhanced value proposition" concept into practice.

Exhibit 2
The Three Dimensional Service Value Proposition


Managing the Time Dimension
Creation of Intangible Value Over Time
Perspectives and anticipation of service consumption
Tightening links to the market: envisioning client's future needs
Creation of Physical Value Over Time
Strategic planning
Revenue management
Professional Value Creation
Rewarding performance
Providing outstanding relevant and consistent service experiences
Building reputation and pride on technology expertise and on the quality of the physical support
Managing the Intangible Mix Dimension
Managing the Physical Support Dimension
Developing org. capabilities, learning, incentives, compensation
Partnering: prospecting, and accessing sources of technologies and key physical support
Acquisition of Skills and Technical Capabilities

Service innovation should be formulated in parallel with design and development of the tangible product, or physical support, which may allow for its delivery and consumption. Anticipating the "service needs" of the tangible support leads to consideration of how the physical characteristics and parameters of the product match service objectives and constraints, just as designing the object itself leads to expressing specific needs in terms of technical considerations. Consequently, managing the product during its lifetime, in terms of service needs, is impossible to untangle from managing the lifetime of the tangible product. Coherent management of the interactions between these different product development aspects considers three dimensions of the "service value proposition" or real "product" in more simple terms: the "tangibles", as expressed in physical/technological terms; the "intangibles mix", as expressed in terms of market service needs; and the match between both these and the customer needs over time. The third "product" dimension refers to the customer's consumption of the "service value" over time.

A number of relationships may be established between the different activities that occur during the “product's lifetime” as previously defined. Consider the three dimensions as if they were orthogonal. Each edge of the virtual cube represents a set of activities of the firm:

- The design of the physical support and its manufacturing process- Research & Development and production activities, narrowly defined.
- The recognition and articulation of current customer needs defined in term of service mix offering, customer service and marketing activities included, narrowly defined.

If these two sets of activities are performed simultaneously but separately, there will in general, be some lack of coherence between the 'endpoints' of these endeavors. Instead, there must be some “redesign” that matches tangible with intangible, leading to the third point. Arriving at the third point also involves the myriad of activities that ensure the physical support can be manufactured to specification, can be delivered to the customer's premises and/or installed so as to be ready for use, and that the employee and/or customer will be trained in its use. In a traditional firm, the lack of inter-functional co-ordination or of co-ordination with suppliers of physical support, leads to the two separate paths resulting in separate designs, with the subsequent iterative, inefficient, and time consuming realignment of the physical dimension and the service dimension into the definition of a consistent “package” combining tangible features and appropriate sets of services. The firm that recognizes the fundamentally cross-functional nature of product / service design, and can reduce the usual organizational conflicts, is more likely to take the direct (although rarely linear) path from the launch of the new product to the design of the coherent package submitted to the market. There is little new in the above discussion. However, it ignores the fact that product characteristics, as well as customer needs, may change over the course of the product's lifetime. Hence the time axis may also change. Consider, now, the following activities:

- Managing the “physical" component of the “value proposition” over time: the constant upgrading of a bicycle fleet on the field, the refurbishing of an hotel premise with implementation of wireless communication technology, the technological description of repair, maintenance, reconditioning, or re-manufacture of a physical product over time, and/or the specification of future upgrades or add-ons and/or decisions as to the compatibility of the product with other products, present and future.
- Managing the “service” component of the “value proposition” over time: The anticipation of how the customer's use of the physical support evolves with time, including the customer's changing needs from services in conjunction with other available solutions.

Again, aggravated by insufficient inter-functional communication or co-ordination, these activities may happen independently, leading to the problem of a lack of coherence of the end result. Furthermore to be effective, the process must match product properties over the course of its lifetime, with changing customer needs, in order to arrive at an ultimate definition of the company’s “service value proposition”. This process will also lead to the planning of a variety of ancillary activities: additional web-services, wireless electronic payment, parts inventories, etc. As we discussed above, the iterative “matching” that occurs as “physical component managed over time” and “service component managed over time” gradually coalescing into the “ultimate value proposition”, is a spectrum of the inter-functional conflicts that exist in most firms. Firms that recognize the need to bring a multi-functional team to the design process are able to move along a direct path to the end result.

The remaining question deals with organizational structure. Considering that some functional separation is necessary for developing the professionalism and the quality of the work carried out, but also considering integration to be a condition for ensuring coherence in managing the product throughout its lifetime, as well as for controlling the total cost of its development and its consumption, attention was concentrated on the identification, the categorization and the establishment of integrative units in the Service organization. The concepts of integration and separation, permanently linked together, are richer than the pair centralization / decentralization, even though the latter form the basis for delegation of functional responsibilities within the Service organization. Co-ordination is required in virtually every activity that comprises a service function. Thus, as an example, modifying a replacement part should lead, theoretically, to adapting the documentation identifying it, to modifying the kits and updating stock, to transmitting to the replacement logistics function the anticipated rate of availability, as well as to managing the circulation of these parts and rebuilding the former models to replace them, etc. For a long time, most after-sales managers would have said admit that such serially-connected actions prove to be very difficult to carry out because of the absence, within their organizations, of integrative units explicitly responsible for guaranteeing this sequence of activities.

After some empirical analysis carried out in several companies, we were able to identify a series of elementary tasks that could constitute the mission for an integrative organizational unit undertaking Service Mix activities. There are, of course, many ways to group these elements within such a unit. Our proposal is based on a view of Service Mix activities as a value chain which accompanies the concepts of before-sale negotiation, during-sale, and after-sale time periods, in any sort of industry. Activities can be grouped into four clusters:

- “Design” is the firm’s answer (on paper) to the needs of its customers over time, i.e., the conceptualization and planning of all tangible support and components as well as all services that might be based on the use of those tangible items throughout the customer-provider lifetime.

- “Preparation” for use brings together all activities that allow the customer to get ready for the consumption of the service, or to obtain the physical product, together with all services that accompany it, at his/her premises or anywhere it has to be made available.
- “Information” activities encompass all those that, on one hand, gather and encapsulate knowledge of customers' needs and how they consume the offering over time and, on the other hand, transmit data enabling a proper and most effective consumption of usage.
- “Upkeep” is the set of activities that focus on sustaining the value of the company offering over time. In many setting, it is typically associated with Customer Service Department and includes claim management, maintenance, reconditioning, equipment loans, etc.

Finally, decisions regarding the evolution of any organizational structures must contribute to increasing a company’s abilities to constantly innovate. However, innovations are very difficult to plan; often they result from a combination of luck and of necessity, necessity as it is felt by the consumers. Therefore given the current and future challenges that service companies have to meet, the capacity of the organizational structure to foster innovation is becoming critical. Constructing a propitious working environment, including an appropriate organizational structure, necessitates several activities among which we commend the following:

- Developing structures which give the opportunity to every employee, and to customers, to express themselves in the best possible way.
- Elaborating instrumentation aimed at precisely measuring individual as well as collective performances in order to reinforce empowerment and accountability.
- Designing work spaces in such way that they encourage creative interactions among, and enfranchisement of the employees.

4 – Harnessing Technology as an Enabling Option for Strategic Value Delivery

Importance of service strategy and inter-functional coordination might paradoxically be enhanced by the very fact that the necessity of a physical transactional environment to delivered services is questioned by the development of new technologies. “The Internet and new networking requirements are enough of a disruptor for us –says Charles Giancarlo, Chief Development Officer at Cisco- to enter a new market”[35]. Companies are crossing over into new industries and businesses, clashing as well as cooperating in staking out their digital turf[36]. This crossover initially envisioned in the nineties by Gordon Bell and now called the

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[35] Cisco Coming to a Store Near You? The Financial Times, January, 16, 2006.

[36] Gustafson P., and Koff W., 2006. Op. Cit.

"triple way" is definitely becoming a reality[37]. And "triple way" is often extended to the quadruple play when mobility is added. As a matter of fact: 1) Telephone companies offer TV -e.g. Swisscom, Verizon, AT&T-; 2) computing firms get into the telecommunication business and TV, such as Microsoft with MCI and its own desktop phones and videoconferencing devices; 3) TV, music and computer media companies target mobile phones as the next entertainment platform, see MTV with Warner Music Group or MTV with Sprint; 4) technology and entertainment groups team up such as Pixar with Disney, Google and CBS, Microsoft and MTG; 5) Internet companies move into telecommunications and TV, see Google and Wireless, eBay and Spype, and Yahoo and TiVo; finally, 6) telecommunications firms add VoIP (voice on Internet protocol) service, AT&T, MCI, Verizon, and the like.

The crossover of Swisscom well illustrates the power of the Internet as a common platform for creating and managing services. Switzerland's 154-year-old telephone company has ventured into television, using an IPTV platform (Internet protocol TV) from Microsoft to deliver a host of new features to its customers, not to mention rankling the country's largest cable operator, Cablecom GmbH. The company's new features include an improved program guide, picture-in-picture capability that shows three pictures: the original show, the program guide and a thumbnail of another channel selected, as well as the ability to store programs for later viewing via an integrated personal video recorder. IEEE Spectrum emphasized the importance of the Swisscom initiative as a bold move into a new market exploiting the opportunities of Internet from a staid carrier in a staid country: "Swisscom's trial is the most serious test anywhere of a phone company's ability to deliver video and win customers from cable. In other words, only in the land of civility are customers being told to choose between a cable provider and a phone carrier for what is the most revenue-intensive mode of communications we have: television. Hanging in the balance is the future direction of the telecommunications industry and that of a big chunk of the entertainment world as well"[38].
Also, because of Google's long-standing focus on Internet content, its initiative to provide free Wi-Fi service to the city of San Francisco made headline as a credible threat to the telecommunications industry. Finally, eBay's acquisition of VoIP Skype in September 2005 for $2.6 billion certainly causes a buzz. Obviously, owning the voice piece makes easier for eBay users to talk to other eBay users; so in June 2006, eBay announced that sellers could add a link to their listings that allows potential buyers to call the seller via Skype.

Exhibit 3
Online penetration in travel and airline industries

(Source: The Economist, 2006)

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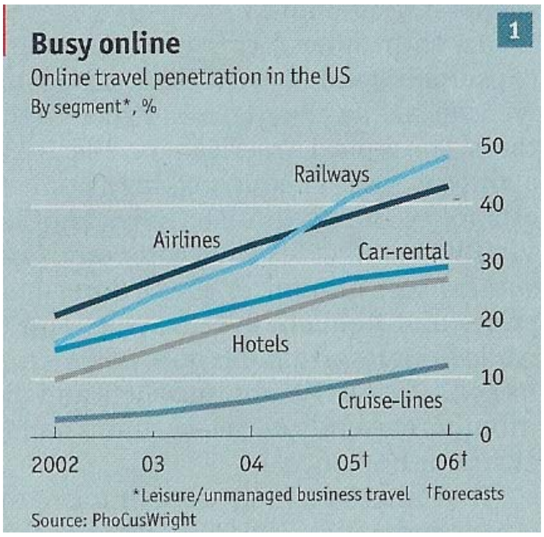
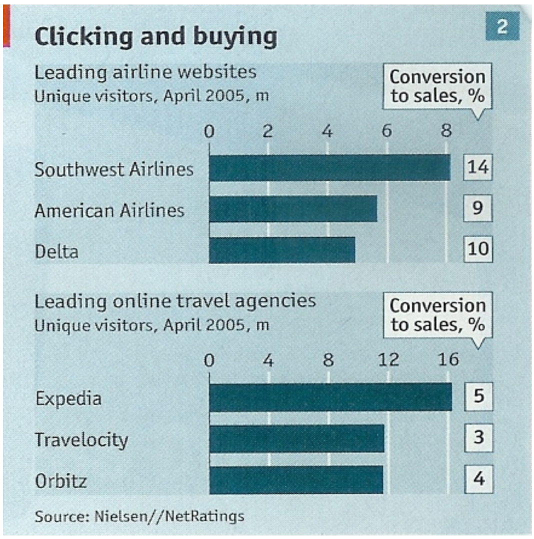
[37] The Telecom Industry Rings Up a revolution. The Wall Street Journal Online, January 5, 2005.

[38] Battle for Broadband. IEEE Spectrum, January 2005.



Source: PhoCusWright



Source: Nielsen//NetRatings

As early as in year 2000, Education for example that has traditionally been provided in classroom, has benefiting form dramatic improvement due to the Internet. Schools and universities, considered as service providers, mobilize significant facilities which very often constitute major urban landmarks. While education seems to become a dramatically growing for-profit service activity, e-learning is exploding, fueling the development of organizations offering distance learning. With 175,000 salespeople and service agents at more than 7,500 dealerships, General Motors Corp. has in the past, spent a fortune bringing employees to hotel rooms and classrooms for training. Using interactive distance learning (IDL) technology now being installed at every dealership, employees are able to view live courses broadcast by satellite and return questions to the instructor, without leaving their workplace[39]. Even the US Army has jumped on this bandwagon by offering SmartForce in the early 2000's, more than 1,000 different information technology courses available over the internet. Neither is e-learning limited to technical training. Shoney's chain of restaurants has begun training waiters, cooks, and other employees using a novel satellite-delivered computer program to teach recruits such basics as how to clock in for work or to take order[40]. However, it is not anticipated that classroom-based courses will vanish, but institutions and training firms that rely on mediocre facilities while still focusing on traditional classroom-type services will see their market shrinking. The more exceptional, customer exposure to service facilities is, the more critical it becomes. Actually, development of telecommunication and internet services generates a multiplication of new retail shops[41]. NTT DoCoMo has had to implement a very dense network of hundreds of outlets across Japan to distribute mobile phones and subscriptions. US based Lycos Web portal announced in the end of 1999 a joint venture with Singapore Telecommunications to set up customized versions of Lycos in 10 Asian cities. As a tangible result of this alliance, Lycos Asia's physical artifacts are already popping up in the streets of Singapore, becoming a remarkable component of the urban landscape.

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[39] Symonds W., Education, *Business Week*, January 10, 2000.

[40] Enhorn B., Yang C., Portal Combat, *Business Week*, January 17, 2000.

[41] Kunii I., Baker S., Amazing DoCoMo, *Business Week*, January 17, 2000.

To be successful in providing value-added services, leading manufacturing and retailing companies, as well as the larger number of service organizations, recognize that effective implementation of appropriate technologies has become a key component of the value proposition. Information technology constitutes the primary resource upon which a decentralized and fully integrated service system can be based. It enables the service organization to maintain permanent communication links amongst different locations, especially valuable for the multinational service provider. As an historical example, Europcar for instance, was decentralized and uncoordinated before a new CEO took over the management in 1993. Computer systems did not communicate and country managers were not held accountable to headquarters. Fleet and service rates differed across the continent. The group acted like a loose federation of independent firms[42]. Top management acknowledged that organizational changes were necessary to reduce costs but also to create an integrated entity. Fifty-five separate information systems were replaced by a single system provided by Perot Systems Corporation in Dallas on a 10-year contract. About two hundred Europcar employees were transferred to the information system provider. The centralized information system now enables the company's headquarters to check the number of cars available and their real time stage of preparedness at any branch. Subsequently, the system has been permanently upgraded and improved.

Nevertheless, the assumption that technology will serve the same enabling functions both locally and internationally does not hold under all circumstances[43]. Technology alone cannot be expected to lead to successful and efficient operations. It must be integrated coherently and synergistically into a broader operational plan whose tactics and strategies support the service vision. While addressed at the global level, this operational plan has to adhere to three rules: 1) Provide an "exportable" front-line delivery process; 2) Provide a feasible strategy for disaggregating the service production process; 3) Assure that any technological applications on which it depends are adaptable to local conditions.

Technology is not *per se* a solution to improve performance in service performance. It must be appropriate to the problem at hand, integrated into the domain of feasible options, compatible with the organizational structure of the firm and consistent with the dominant thrust of an overall business strategy while being maintainable. If the introduction of technology into the service organization is meant to accomplish a particular goal, both the introduction of the technology and the accomplishment of the goal must be individually targeted. The choice of appropriate technology requires a very careful assessment of the extent to which vital confidential aspects of the company might be compromised through outsourcing and what the costs would be of acquiring the technology in-house. The limiting factor in its application is almost always the degree to which it can be integrated into front and back office operations.

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[42] Guyon J., Competitive drive: as Europcar's experience attests, cross-border business can be a thorny as cross-border politics, *The Wall Street Journal,* September 30, 1994.

[43] Mathe H., *Le Service Global*, Maxima, Paris 1997.

But technology may have some drawbacks. Employees unaccustomed to technology may perceive a threat to their security. They may be right since service organizations have been slow at embracing new technologies in the past. It is important to deal with the human aspect of technological operations as part of the overall strategy of the firm. In addition, obsolescence is inevitable. The real danger is not so much that a firm will be left behind as its technology ages, but rather that it will miss opportunities to expand because of technological limitations. The solution to this problem lies not in acquiring the latest technology uncritically, but rather in developing or acquiring the capacity to assess the needs of the service firm together with the potential of the application and to reconcile them. It may often be useful to regard the acquisition of new technology as an enabling option. Whether or not the option ought to be exercised does not depend on the strategic value of the technology, but rather on the strategic value of what it ultimately enables.

Professor Hervé Mathe teaches operations strategy as well as service innovation management at ESSEC in Paris and Singapore; he currently leads the Institute for Service Innovation and Strategy. Previously an associate dean in charge of executive education and of the postgraduate programs divisions at ESSEC, he has also served in parallel at the University of Lausanne in Switzerland for nine years. Prof. Mathe has launched the Logistics Institute Asia Pacific at the National University of Singapore, a joint research initiative with the Georgia Institute of Technology in Atlanta, in year 2000; and the Arthur D. Little Center for Service Excellence in Boston, in 1995. As a visiting professor, he has taught at the Harvard Business School in Boston, the Wharton School in Philadelphia, Cranfield University in the UK, and the SDA Bocconi in Italy. He is a consultant to major organizations in both the public and private sectors, and has published extensively in the areas of logistics and service management. He holds a Ph.D. in technology management from Cranfield, U.K., a Doctorate in management science from the University of Paris Dauphine, as well as a Doctorate from the Institut d’Etudes Politiques de Paris. mathe@essec;fr

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