Rethinking service innovation: four pathways to evolution

Roberta Sebastiani (*corresponding author*), SeGeSTa (Dipartimento di Scienze e Gestione Aziendale), Università Cattolica del Sacro Cuore, via Necchi, 5/7 – 20123 Milano, Italy. Phone: +39.02.7234.2673; Fax: +39.02.7234. 2771; mailto: roberta.sebastiani@unicatt.it

Marco Paiola, Department of Economics and Management, University of Padova, Via del Santo, 33 - 35123 Padova, Italy; Phone: +39 049 8274054; Fax: +39 049 8274211; mailto: marco.paiola@unipd.it.

Authors' biographical outline:

Roberta Sebastiani is Assistant Professor of Management and Marketing at the Catholic University in Milan and collaborates since its foundation (1989) with Centrimark - Centre for Marketing Research - at the same University. Her research topics are: patterns of service innovation, management of supply chain relationships, new trends in retail marketing, competitiveness effects of sustainability policies with special regard to retailing and in franchising. On these topics she has written several journal articles and books chapters.

Marco Paiola is Assistant Professor of Management and Marketing at the University of Padova; his research topics are service management and innovation, manufacturing into services transformation processes, innovation in Knowledge Intensive Business Services, and cultural marketing. On these topics he has written several journal articles and books chapters.

Rethinking service innovation: four pathways to evolution

ABSTRACT

Purpose: The purpose of this paper is to explore service innovation. S-D Logic and SSME provided us with the conceptual framework to describe the evolutionary pathways companies could develop by innovating in order to overcome and rethink the traditional and, in most cases, scarcely productive ways of managing their businesses.
Design/methodology/approach: Firstly, we critically reviewed the literature regarding service innovation, highlighting the importance of adopting a dynamic perspective; furthermore we built upon latest contribution on S-D logic and Service Science Management and Engineering, in order to introduce our research framework. Then we present the first results of an in-depth analysis based on almost a hundred Italian services and manufacturing companies.
Findings: The research allowed us to identify four different evolutionary paths based on innovation that companies are pursuing in order to face the growing complexity of the environment in which they compete. The different paths are oriented respectively towards the dematerialization of the offering system, the virtualization of the value systems, the replication of the organizational models and the multiplication of the market niches.
Originality/value: The paper presents four stereotypical cases we believe well represent the characteristics of each path. The cases allow us to emphasize the specificity of each path, especially in terms of antecedents and the role of the different SSME key resources: people, technology, organizations and shared information.
Research limitations/implications: The results of our analysis represent a starting point in order to better understand, in a dynamic perspective, the role of innovation in supporting the redefinition of the companies' business models and the conditions that can enable their path development.

Keywords: Service Innovation, Service-Dominant Logic, Service Science, Evolutionary Pathways.
Category: Research paper

Rethinking service innovation: four pathways to evolution

Introduction

Being scarcely understood, service innovation represents an interesting area of investigation (Maglio and Spohrer, 2008). According to Sundbo (2006) "*both society and the market have changed and with them the art of innovation management has changed*" (p.1) and that means that "*the factors (innovation research, basic research in natural sciences and classic entrepreneurship) that typically have been thought to ensure innovation, company development and economic growth are too limited for the present situation*" (*ibidem*).
A lot of innovation success is nowadays due to non-technological intervention on the offering system, and not necessarily related to the intense use of hi-end technology solutions that guarantee outstanding functional performances (Normann, 2001; Carr, 2003). Therefore, innovation must be viewed in a broader context (Edvardsson et al., 2000; Gustafsson and Johnson, 2003), since it has become something broader than technology-based developments of new technological products: many innovations are non-technological or a mixture of technological and social aspects.
The aim of this paper is to contribute to the service innovation field of research, with special attention to non-technological dimensions of service innovation. We believe that this area – that we named the "soft side" of service innovation – is a largely underexplored issue, despite its enormous importance and perspective fertility.
The term "soft" is here used in order to stress innovation specifically related to people, relationships, meanings and knowledge: these are both established and emerging dimensions that our research indicates as crucial in building a sustainable competitive advantage. In fact, soft innovation can be interpreted as complementary to technological innovation and often builds on specific bundles of resources (as we will see below) and non-imitable interrelated assets that can act as defendable factors of success.
In the following pages, we present the results of a study specifically designed to explore the dynamic side of "soft" innovation. In particular, we want to contribute to the explanation of the strategic aspects of service innovation, reporting the directions of innovation we have observed in selected service and manufacturing companies operating in Italy.
The paper proceeds as follows. The theoretical background tries to explore the suggestions that arise from the recent literature on service innovation adopting the S-D Logic mindset and its philosophical foundations. In this framework we'll also outline and build on the contributions made by the emerging Service Science discipline, in particular for what concerns the domain of service innovation. In the second part we report the results of an ongoing empirical research, based on multiple case-studies of almost a hundred distinguished companies extracted from CFMT's affiliates database[1]. The project allowed us to analyse innovation strategies in different industries, including mature and emerging ones. Through the use of different methods of investigation - semi-structured interviews, structured questionnaires, participant observation and secondary documental sources - we collected valuable information regarding companies' strategic and operative choices, along with a dataset specifically related to innovation and its drivers. We finally explore managerial and practical implications of four emerging evolutionary pathways, in order to help companies to focus their attention on the most strategic and up-to-date drivers of innovation.

Theoretical background

As pointed out in the introduction, non-technological innovation, especially in services, is an emerging and challenging issue in innovation studies. As Gallouj pointed out, "*Those studies that equate innovation in services with technological innovation (adopted by services) are by far the oldest and most numerous, which has contributed to some extent to the overestimation of the technological dimension or, more precisely, the underestimation of other aspects of innovation*" (Gallouj, 2002: 2). This is the reason why, also in recent

[1] The paper is based on a vast research project named "Service intelligence: the engine of the economy", granted by **CFMT** (*Centro Formazione Management del Terziario* – Services Management Training Centre), the management training institution branch of **Confcommercio** (the association of Italian service companies) and **Manageritalia** (the union of managers and professionals from the Italian service sector) in Milan. The project has been involving a group of academic researchers and professionals for three years.

years, some scholars – although recognising the importance of early streams of research - have pointed out the need to invest in better comprehension of innovation in a service perspective (Blois, 1984; Tether, 2005).
This leads us to envisage the coming of a service innovation research stream, where a main feature is the consideration of a still incompletely explored issue: the "soft" side of service innovation, where the term "soft" implies the dimensions of innovation specifically related to people and organization, markets and relations, knowledge and integration, meanings and experiences, that seem to better ensure to firms new drivers for a sustainable competitive advantage.
Omitting, for sake of brevity, plenty of details regarding the evolution of service innovation theory (for a comprehensive outlook see: Droege 2009), we underline that recent contributions dedicate important efforts in searching for a synthesis between traditional and emerging approaches in innovation in services. In fact, in one of the last (in time terms) approach in this field – the "integrative" view (Gadrey and Gallouj, 1998; Gallouj, 2002) - technology is integrated with the other aspects of innovation. The integrative approach represents a synthesis of prior approaches (Coombs and Miles 2000), attempting at overcoming the traditional dichotomy between manufacturing and services (Sundbo and Gallouj, 2000). As a result, innovation cannot be restricted to the adoption of new technologies: instead it is to be conceived as a creative use of technology in order to interpret the market or integrate the knowledge of the supply chains (Tether and Metcalfe, 2003).
In addition, several recent theoretical developments in multidisciplinary contexts have contributed in opening new perspectives in considering the service innovation domain, emphasizing: culture and organization (Normann, 2001; Kandampully, 2002; de Jong and Vermeulen, 2003; de Vries, 2006); experiential dimensions (Pine and Gilmore, 1998; Schmitt, 1999); customers knowledge integration in the value creation processes (Preissl, 2000; Prahalad and Ramaswamy, 2004; Zeithaml et al., 2006; Edvardsson, Gustafsson and Enquist, 2007; Gronroos, 2007); inter-relations and networks among organizations (van der Aa, Elfring, 2002; Gummesson 2004; Love, Mansury, 2007; Tether, Tajar, 2008).
In particular, marketing theory has been recently the theatre of an intense discussion regarding its dominant logic. In this context, an important contribution in the beginning of 2004 has introduced the Service-Dominant Logic (SDL) body of concepts, that afterwards have gradually emerged (Aitken et al. 2006) as a new way of considering the roles of firms and their relations in the market context (Vargo and Lusch, 2004, hereafter V&L). To give a complete representation of the many contributions written on the topic is not an objective of this work: thus we will concentrate on the most relevant topics of SDL for our research and for innovation in particular.
V&L present their message through ten foundational premises (FPs). These are the result of an ongoing process of continuous improvement and integration of the approach, also taking into account the reactions and the debate initiated in the academic and professional communities (see for example the invited commentaries in 2004 and 2006, as well as the book edited by Lusch and Vargo in 2006 containing various critical contributions).
The very basic breaking-through concept is contained in FP1, that (in its 2008 revision) says that service, rather than goods, is the focus of economic and social exchange, i.e. service is exchanged for service, where service (and not services) is the application of competences for the benefit of another entity. Therefore, this picture implies that all economies are service economies, and all businesses are service businesses. This view of economic (and social) exchanges builds on a fundamental distinction between *operand* resources (goods) and *operant* resources (Vargo and Lusch, 2004). The latter - namely knowledge and skills linked to employees, partners and customers - have gradually become the focus of modern value (co-)creation processes.
Moreover, organizations and customers (organized in "service systems", as we'll see), like other social and economic actors, are resources integrators at different levels and interact by the mutual provision of service, in order to co-produce (in the upstream value chain) and co-create value (downstream between the customer and the firm) in a logic of togetherness. In other words, value is co-created among service systems when resources are used and the role of the customers is not limited to consumption like in mainstream marketing, but they are active participants in the value creation process, and that means that the customer is always a co-creator of value.
Finally, since value actualization is always and uniquely determined in a contextual way by the beneficiary, the value of firms' offerings is potential until the value is determined. For that reason firms' offerings are value "propositions", that earn a real value only if customers buy them.
As a foundational theory of marketing, S-D logic aims to capture evolutionary thinking about value creation in modern times, and is still in a phase of ongoing and open development. Recently an interesting

convergence has appeared with a previously distinct stream of research, namely Service Science Management and Engineering (SSME)(IFM and IBM, 2007).
SSME - or simply Service Science - is an emerging interdisciplinary field of inquiry that focuses on fundamental science, models, theories, and applications to drive innovation and competition (Chesbrough 2005). Its object of study are service systems, whose design and management it aims at advancing (Spohrer et al., 2008). As we anticipated, recent developments of SSME are in great consonance with SDL, focusing on the service system as the principal unit of analysis and extending the original hi-tech bias with quality of life and co-production.
A service system is a value co-creation configuration (Maglio and Spohrer, 2007): it is an arrangement of resources (including people, technology, organizations and shared information) connected to other systems by value propositions (Spohrer et al., 2007; Spohrer et al., 2008). Individuals, groups, organizations, firms, and governments can be considered to be service systems if they can take action, apply resources, and work with others in mutually beneficial ways. That way, service systems include internal (e.g. employees), private (friends, stockholders), and market-facing (suppliers, other economic exchanges) systems and resources.
Service system is undoubtedly an important construct in SDL-SSME's framework, since innovation is basically played at the service system level. Three interesting concepts of value emerge from the SDL-SSME framework: value in exchange, value in use and value in context.
Value-in-exchange is the negotiated measurement offered and received (e.g., money in payment for a value proposition) among exchange partners. The integration and application of resources made available through exchange allows value creation: in other words, the process of co-creating value is driven by value-in-use, but mediated and monitored by value-in-exchange (Vargo, Maglio and Akaka, 2008). Furthermore, co-creation of value inherently requires participation of more than one service system, forming systems of value co-creation, in which the *context* of value creation is as important to the creation of value as the competences of the participating parties (Vargo, Maglio and Akaka, 2008). The contextual nature of co-created value suggests that also social, ecological, and governmental surroundings are to be considered in the process of value creation.
From the point of view of innovation the SDL-SSME schema is contributing to redefine the relationship between value and innovation, highlighting some issues that equally represent challenges for firms:

- a general shift in innovation mindset, from the prevailing Goods-Dominant (GD) Logic to the Service-Dominant one (as described above), pushing firms to get accustomed to a rather new management of innovation (Michel et al., 2008); the recent shift from possession to mobilization of resources is a part of that general evolution (Tidd and Bessant, 2008);
- the need for new basic competencies, regarding marketing, organization and technology, as the fundamental competencies firms have to govern in order to face the challenges of value co-creation in service systems networks(Gummesson, 2006); in particular, relational competencies are to be taken into consideration when approaching a value in context optimization.
- the need to enlarge the value chain landscape in order to include social and institutional actors that belong to the wide spectrum of firms' stakeholders; modern sustainability challenges not only refer to economic aspects but also to ecological ones, and to the weak and strong ties firms are able to create in the territories they are localized.

We believe the abovementioned issues belong to the "soft" side of innovation, and as far as we know they remain widely under-investigated by service innovation scholars. For that reason, they have been examined through in-depth personal interviews of selected firms in Italy, as we will show in the next paragraph.

Empirical results

In order to better understand the direction towards which companies are moving in the innovation process adopting the S-D Logic and the SSME perspective, we chose the case study approach as our research method. The preference for this method was based on the consideration that a case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used" Yin (1989, p. 23). At the same time, Eisenhardt (1989) underlines the potential of case studies to aid understanding of the dynamics of the phenomenon examined (Halinen and Törnroos, 2005).
Moreover, case studies offer depth and comprehensive information that allows us to understand the specific phenomenon (Easton, 1995) especially when little is known about the phenomenon and current theories seem inadequate (Easton, 1995; Eisenhardt, 1989; Yin, 1989).

Starting from the analysis of the almost a hundred cases, there seem to be four different approaches that companies adopt when pursuing innovation. Despite the fact that companies often implement a hybrid strategy, merging different approaches, the results of our research that there is only one primary focus and it has to be reconnected to one of the four alternatives.
The different paths the companies follow are oriented respectively towards *the dematerialization of offering systems, the virtualization of value systems, the replication of organizational models and the multiplication of market niches*.
Each path is characterized by some specificities that represent the distinguishing factors and at the same time the conditions that enable the innovation process.
We'll summarize in particular four cases, one for each approach, which will help us to understand the practical implications associated with each path.

The dematerialization of offering systems

Companies that are moving in this direction start from a typically industrial model, where the focus is concentrated on pursuing high levels of productivity through the exploitation of multiple uses of knowledge (or in other words through the basic principles of mass production, which concentrate on volumes). The new approach enables them to propose to the market an "enriched" offer in terms of value, especially in the immaterial sense.

In this case, companies have progressively shifted their attention from the production process in its narrowest sense to a new interpretation of the structure of their portfolio of products/services in "holistic" terms, where the intangible components (linked to the company's reputation, the value of its brands, its management of its relations with the market and the supply chain, the company culture and its human and social capital) allow companies to provide a value that the market perceives and recognizes as an element of differentiation.

However, this does not mean that these companies abandon the material in favour of the immaterial: the core of their portfolio does not change, whether we are talking about a tangible product or a service. What changes is the company's creative reinterpretation of it, based on the potential that abstracting the business idea – intrinsic to the portfolio – can have in different fields of application, or based on the conceivable "sensemaking" dimensions that can enrich the offer in order to respond to the ever more advanced and complex needs expressed by the market, whether in business-to-business or in business-to-consumer industries.
This path is distinguished, first of all, by the fact that one of the prerequisites for the change lies in the emphasis that top management places on establishing, and then sharing, a *"strong" value system* that will steer the company in the right direction.
The existence of a value system undoubtedly constitutes a softer side of innovation, which in the cases analyzed, represents a particularly important driver in the innovation process.

Another important driver is represented by the existence of a *widespread culture of innovation* within the organization. By analyzing the specific details that distinguish the companies examined in this study, we can witness *the pyramidal structural model being surpassed* and metamorphosing into flatter structures.

From this viewpoint we can also perceive the tendency towards *opening up to network structures in order to transmit and share knowledge resources:* this constitutes an equally fundamental characteristic of the companies that are following this specific path.

The scale of the dematerialization process is also determined by the increased importance of the economic results and profits posted by the company that can be traced back to the "service" component adding something extra to its classic portfolio of products and/or services.

A further feature that distinguishes the companies that have decided to follow this pathway and have fully exploited its potential can be identified as the *increased centrality of the role they play within the supply chain* (especially downwards, but also upwards).

What we are dealing with is a rethinking of the supply chain as a place where "dematerialization" takes place and requires the behaviour of the different entities to become harmonized. Therefore companies moving in this direction need to act as pivotal elements in the process or take upon themselves some of the functions and roles previously filled by others in the same supply chain.

If we look more closely at the offering dimensions, we can notice a *shared focus on the idea of sensemaking linked to the portfolio of products and/or services.* Sensemaking can range from a more aesthetic/symbolic dimension to a more clearly ethical/value-based one and exploits the value connected with the brand, the experiences and the value co-creation process.

Loccioni Group

The Loccioni Technological Ateliers develop bespoke solutions, like a technological tailor, producing processes and products innovation to improve quality, comfort and safety: at home, at work, in the car, in towns, in the nature.

Around a nucleus of values strongly linked to its homeland and its cultural heritage, it has started a process of opening itself up to new possibilities, thus engaging in cross-contamination with the outside world.

"At the root of our work there is the LAND, with the lessons she has given us in the past and continues giving us. At the heart of our work there is KNOWLEDGE, meaning technological research and continuous innovation. At the end of our work there is the PERSON**,** because what we do is our little contribution to quality of life: at home, at work, on the move, in the environment," is the calling card we read when we open the homepage of the Loccioni website.

Over time, Gruppo Loccioni, has taken on a leading role within its supply chain, acting as a catalyst in the process of transferring knowledge and competencies that can back up the value element (which supports the material products) with immaterial elements that are strong enough to guarantee recognition of its supremacy from the market. In this perspective, the constant focus it has put on activating relational networks that will actively involve its partners in the supply chain has represented a chance for cross-fertilization of the different cultures' humus and an opportunity to gain the involvement and consensus of the various players along the supply chain.

"We integrate people, ideas, technologies. This has been the Group's commitment: to build fruitful and faithful relationships with Collaborators, Clients, Suppliers and also Universities, Research Centers, local Colleges, innovative partners in order to let the company break out of its borders and develop together with the territory".

Work teams guided by project leaders coordinate the activities of collaborators, suppliers, customers and the best research centres.

Automation, testing and control systems are designed and integrated to help everyone who makes products or offers services to do so in the best possible way.

The organization carried out by cross-competence work teams allows the development of innovative tailored solutions in different sectors, from household products to automation processes, from telecommunication networks to environment and energy control.

"People and their knowledge create the enterprise, the network, the system: they represent the real capital".

The virtualization of value systems

This pathway draws our attention more directly to the role that technology – in particular ICT – can play in the field of "soft" innovation processes.

In this context, technology is not an innovative element *per se*, but constitutes the driver that enables companies to activate mechanisms that simultaneously explore and – above all – exploit knowledge.

More than in the other paths we have identified, in this field the company sees its scope for the exploration of new possibilities to generate sustainable and exploitable competitive advantages expand, as part of a philosophy of multiplying knowledge that is thus established.

The access to the transfer of immaterial assets over time and space is facilitated. These assets are vital for competitiveness in this era of complexity, in particular knowledge and relationships, both of which display an extraordinary potential which companies have yet to fully exploit.

In this case the virtual, as we have already seen in the path towards dematerialization, neither substitutes nor opposes the real, but somehow integrates with it and widens its boundaries, which then open up to processes of creation and reinterpretation of actual reality.

In this sense, we are witnessing concrete manifestations that stem from technology and in particular ICT and are seeing not only the generation of new business models but also the strengthening of previously existing business models by increasing their efficiency and flexibility.

As we will see, however, technology alone is not enough: all the other aspects of soft innovation need to be activated for the technological side of the process to be able to completely fulfil its potential.

In fact, when studying companies that have gone virtual we witness a process in which their structural and managerial responses are redefined, their ways of working are transformed, new consumption models are generated, production and distribution structures are amended and, on a wider scale, the philosophies and rules specifically referring to the supply chain and constituting a similar number of ways of interpreting the specific needs of this kind of process are reworked and redefined.

The elements linking the businesses that embark on the virtualization process on an operational level, however, are quite different.

Obviously, we can observe a *higher level of openness towards the potential provided by new technologies (in terms of company culture)* in all these businesses; it could not be otherwise.

The decision to follow this kind of pathway starts from the willingness to consider technology – and in particular ICT – as vehicles able to lead to new ways of doing business.

Therefore what we have here is not companies considering this aspect as a facilitating element with only residual importance after other drivers leading to change, but their recognising the central role that ICT (and not only) can play in rethinking the business the company already operates in or in creating new ways of interpreting previously existing businesses. What we can observe, therefore, is an approach that represents the starting point and at the same time the final destination of the philosophy of change.

However, it is not enough to simply believe in the potential of technology: *targeted investments are needed*. All the businesses we have examined stand out because they have followed up their words with actions: they have made *ad hoc* investments to support their plans, investments that have managed to translate the immaterial idea behind the newly designed business models into operational reality. These investments are also characterized by their continuity, another defining feature of the companies that have decided to follow this alternative development model.

As we have already stressed, the business models of the companies that have embarked on this journey have been established using technology, and especially ICT, as their launch pad. What is more, they have a double objective: on the one hand they have striven towards greater efficiency linked to the rationalization of some vital processes specific to the sectors these companies have decided to operate in, while on the other hand they have worked towards the goal of differentiating their offer structure enough to increase the surplus value they offer to the market.

Therefore, *the strategic interpretation of ICT as a vehicle for the increased competitiveness of the company,* in its contextual acceptation of the two dimensions of differentiation and efficiency, constitutes another defining feature of this process.

The companies analyzed have dealt with this issue in different ways, yet it remains a particularly incisive defining feature.

Moreover, in order to fully understand the potential of technology and more specifically of ICT, it is important for people – managers and entrepreneurs in particular – to have *specific competencies that constitute defining assets for the company*, assets that will allow them to actively take part in the guiding and advancement of the business.

Yoox.com

The YOOX group is a global internet-retailing partner for leading fashion and design brands, established in Italy in 2000 by Federico Marchetti

Curious and continuous scouting for new creative possibilities make YOOX.COM, the most important unit of the Group, an innovative online space offering exclusive collections. Thanks to a direct relationship with designers, manufacturers and authorized dealers, in fact, YOOX.COM is the only destination offering an infinite mix & match of hard-to-find styles and trends:

* Exclusive collections for YOOX.COM by prestigious Italian and international designers
* A carefully selected range of end-of-season clothing and accessories at accessible prices
* Vintage collectibles
* Capsule collections by cutting-edge designers previously confined to selling in a few fashion capitals
* Worldwide premières of new brands
* A fine selection of design and rare books

Four million people visit YOOX.COM every month to play with ideas, objects and colours, inventing their own style and expressing their own individuality. Through an emotional and kaleidoscopic shopping experience, YOOX.COM explores fashion from the past and potential styles for the future.

Once inside YOOX.COM customers experience the alchemy of a creative cyberspace, where technology meets women and men to explore a new concept of entertainment via shopping.

YOOX.COM offers its customers an exceptional quality of service identified by: secure payment; a total privacy warranty; rapid UPS delivery with gift packaging; free returns and refunds where required; efficient customer service via phone and e-mail.

The Group has made significant investments in technology and has developed a reliable, scalable IT infrastructure to support its YOOX Technology platforms. In order to exploit the knowledge and capabilities strengthened over time, the Group has recently launched a new unit, YOOX SERVICES, which provides retailers and manufacturers with a variety of third-party services such as e-commerce platform management and support, order management, content management, merchandising and marketing.

The replication of organisational models

Among the various options we are presenting, we also find development through replication of the knowledge system at the root of the business model. This, in some contexts more than others, constitutes a solution able to respond to the ever more frequent competitive demands arising from the context.

The innovation process is obtained by optimizing processes and then replicating them. We are dealing with activities that do not pervert the nature of the original formula, but rather creatively rethink it in order to effect change both in the value dimension and in the process of replicating the investments in knowledge at a reasonable cost.

The decisions that are then put into practice can generally be traced back to the search for methods designed to formalize a part of the processes (whether organizational or otherwise) through the codification of knowledge (which may be tacit), in order to be able to reiterate the model and replicate the knowledge systems implied by the original model by encouraging the participation of various different agents.

One example of this can be found in the franchising formula, which, from our point of view, is not limited to the simple duplication of a business model but instead implies an intelligent reinterpretation of it by drawing on the resources typically used in soft innovation.

First of all, we can find a reinterpretation of the traditional role of the business owner that moves towards an "advanced" form of management, *i.e. with a vision and greater creative intelligence than the classic competitors in the sector*, and with corresponding managerial abilities either acquired or rationalized using the experience gained in the course of the development process as a springboard.

The companies' organizational structures have been substantially slimmed down and they have been formalized according to a philosophy of flexibility whenever deemed appropriate.

The objective is clear: increasing efficiency and productivity levels without weighing down the structure, instead providing the flexibility that the complexity of the situation requires.

However, we can observe a sort of supervised independence, a controlled self-determination that characterizes the spread of replication. As we will see, this allows companies to activate networks that are not constricting but rather aimed at establishing the conditions for an exchange that will be progressively directed towards increasing the knowledge resources of the network as a whole.

This knowledge begins with the exploration and examination of the specific needs of the demand, of the faint signs that have not yet completely manifested, of the spaces that for the moment are poorly defended; it finds its application in activities, whether formalized or not, that are related to *investment in market research***.** This is in order to better identify the directions to move in and share them with the other entities involved in the future replication process.

In all the businesses examined, albeit with emphasis placed on different aspects, an intense drive to exploit their information assets (appropriately reworked and filtered through the specificities of the business model and the company's portfolio by adopting *active communication policies* dedicated above all to the market, but without forgetting the actors/partners involved in the initiative) goes side by side with these aspects as their mirror image. These are initiatives aimed not only at increasing brand awareness but also at making the transfer of the philosophies that have driven the development of the business model possible.

On the other hand, the *network model* that defines this archetypal path and springs from intense internal communication activities and the sharing of principles, knowledge and abilities, is strongly oriented towards the common purpose.

The philosophies that the companies we have analyzed have adopted to interpret the issue of replication through the involvement of other agents highlight the intense focus on creating ties that (regardless of whether they have been formalized or not) constitute an infrastructure able to make the replication of knowledge not dissipative but incremental.

Calzedonia S.p.A.

Calzedonia S.p.A. was created as an innovative way to sell hosiery and beachwear to men, women and children. When it was created in 1986, it was established as a franchise, the first branch opening the same year. The company now has 1200 franchised stores in 25 countries around the world.

The idea for the company came from Sandro Veronesi. The challenge: to make a success out of an initial investment of 500 million lire and the idea of exponential growth in the sale of men's, women's and children's hosiery and clothing through a network of franchise shops. The brand to be promoted was Calzedonia (the same as the company's corporate name). Then, in 1996, the same concept was applied to underwear and sleepwear with the start of a second brand, Intimissimi.

In 2003 the company launched a new line, Tezenis, with the same franchise strategy used for the Calzedonia and Intimissimi brands. The product line includes women's, men's, and children's underwear, for a younger and more basic market than that of Intimissimi. It has been successful due to a self-service formula and aggressive pricing.

The capillary franchising sales network is only one of the foundations on which the philosophy of the company has always been based. This feature alone would not have let the company gain such a large market share without the competitive quality/price ratio, wide retail assortment and attentive style and design that has always been accompanied by the use of innovative materials and fabrics.

Maintaining three different brands, the company's activities cover many areas, from design and manufacturing, through wholesale distribution, to retail operations and franchising. Managing such a complex international model creates many challenges as monitoring of the demand and the communication flows.

The demand represents what Calzedonia constantly focuses on, by continuously monitoring the customers through an ICT platform in its sales outlets. This has not only allowed the company to develop its project but also to rework and improve it over time.

The platform also permits the exchange of information between the head office and the franchisee.

Moreover, Calzedonia invests heavily in Ad Campaigns that reinforce brand awareness every season.

At the same time, it doesn't underestimate the importance of the new media and has recently opened its Official page on Facebook.

The multiplication of market niches

The ideas geared towards the exploitation of knowledge resources are exhausted by the previous process, which emphasized the ability to replicate business models, in particular regarding the area of commerce.

There is a further possibility relating to an alternative path, which, stemming from the specific needs of the business, which are often associated with a niche strategy, moves towards the discovery of new contexts where the company can exploit the competitiveness it has already established; the abstraction of the business model and the elements that compose it becomes the activating element that allows it to find new applications.

It is an opportunity that allows companies – using the knowledge system that has been slowly built up over time and the expertise associated with it – to expand their horizons, therefore opening up new dimensions to explore, dimensions that are geared towards milking the potential for multiplication intrinsic to these same knowledge systems.

The approach that distinguishes this pathway arises from a situation where the company has already managed to create a leading position for itself within a well-defined product-market combination.

The path evolves from the starting point represented by the *ability to abstract the vital vehicles of the company portfolio* in order to reinterpret and rethink them in different contexts from those in which they were originally generated by the company.

What distinguishes their way of modifying concepts is the *partial modularization of the product or service* (so that it can be replicated in other contexts). The distinguishing feature is not the ability to think of a completely new proposal to introduce to the new market, but the action aimed at redesigning the company portfolio development system by rationalizing it and thus allowing a partial reworking of the portfolio. In many cases this has involved codifying tacit knowledge systems; these systems have thus emerged and become available for interpretation or reworking in the light of the dynamics of the new contexts they are applied to.

The opening up of new areas of opportunity has at times required extra competencies and/or resources (above all human resources) able to support the development of the structure over time.

Companies have not always chosen to internalize these competencies or increment the number of resources present within the company: more often than not they have chosen to *activate a network that will provide the necessary material and immaterial resources*. In this case, the philosophy behind resorting to the network cannot be likened to the philosophies we found in the replication process. The network here takes on importance as a facilitator, something that can allow the sphere of operations to expand, both in terms of the structure of the company portfolio and the spatial dimension.

What we can observe in the companies that have decided to follow this path is their *heightened sensitivity to changes in demand dynamics*; as if to confirm this awareness we can also find specific figures dedicated to these activities within the organization even in small companies.

Eurofins Biolab

Biolab was founded in Milan in 1970 as an independent analysis laboratory specialising in assays and controls, and in biological, microbiological, and chemical determinations.

From the beginning, the company's policy has centred on the employment of highly qualified personnel.

The evolution of Biolab can be considered emblematic: starting from the experience gained in partnership with the cosmetics industry, the company has managed to gradually expand its activity to the food market and eventually to the pharmaceutical market and the consumer goods market, in particular toys and detergents.

Over the years, Biolab has grown, expanding its fields of activity to include a wide range of services, from consultation to training, from process risk analysis to new product R&D assessment, thus progressively establishing itself as a company that offers a wide array of services to other companies.

This side of the company's activity has been further refined by the fact that Biolab has come into the orbit of Eurofins, an internationally recognized company.

Today the Eurofins Biolab's multi-disciplinary teams of biologists, chemists, engineers, physicists, and experts in legislation and regulations offer companies a complete consulting service. This includes analyses, controls and studies of all sorts and varying degrees of complexity. They also offer audits, controls and validation of processes, risk analysis, consultancy on quality control systems, assistance and consultancy for obtaining registers and certificates and professional technical training.

Biolab guarantees its presence in Italian territory through a network of laboratories that work in collaboration with the company. These laboratories allow the company to provide its services – with increased competencies – also to businesses that operate in quite different geographical areas.

Conclusions and further implications

No doubt S-D Logic and SSME represent interesting frameworks in order to emphasize a service perspective in innovation (Michel et al.,2008), and in this paper we have tried to capitalize on their concepts and ideas in order to support our view of service innovation. In particular, the paper's aim was to investigate evolution pathways of innovation in service and manufacturing firms, with special attention to not strictly technological - namely "soft" - aspects of innovation.

With this purpose we found particularly helpful the recent convergence of SDL and SSME on the study of *service systems*, with the aim of establishing a basis for systematic service innovation (Maglio and Spohrer, 2008). Service innovation, in fact, is connected with changes in the service systems (Spohrer and Maglio, 2008) but not always the direction of change is clear. That is in part due to the fact that in business the combination of technological management with organization and human viewpoint is responsible for an increasing amount of value (co-)creation, highlighting the emergence of a mostly neglected "soft" side of innovation. This perspective could allow companies to shift their attention from the innovation output to the different ways to better serve their market (Vargo and Lusch, 2008).

From an empirical point of view, starting from the observation of our almost one hundred qualitative cases, we highlighted four different interpretations of service innovation patterns, four different directions of change that represent shared paths that companies are following.

In particular, new value propositions emerged from the creative recombination of some key resources, also emphasized by SSME literature: people, technology, organizations and shared information (Spohrer et al.2007; Maglio and Spohrer, 2008). Table 1 identifies specific operational functions of SSME's key resources for each path.

Firms' ability to identify the proper role for each category of resources and to integrate them in order to co-create value propositions represents an interesting view to analyse the service systems evolution.

In the first path, in which firms try to dematerialize their offerings, people play a key role in knowledge transfer within the service systems. Our results clearly show that in this case the attention has to be put on the creation of a widespread culture of innovation.

Table 1 The relations between paths and resources

	People	**Technology**	**Organizations**	**Shared Information**
Dematerialization of offering systems	• Focused on the transfer of knowledge • Widespread culture of innovation	• Enabling the "dematerializatio n" of processes	• Reconfiguration of the supply chain structure • Networked harmonization	• Brand • Reputation • Values • Experiences,
Virtualization of value systems	• Specific technical competencies • relational capabilities	• Enabling the exploitation of reach and richness • Strategic vehicle for the increased competitiveness	• The virtual integrates and widen the boundaries of the real	• Transfer of immaterial assets over time and space
Replication of organizational models	• Vision and creativity • Flexibility in a semi-formalized context	• Access to distributed information • Vector of ties	• Supervised independence • Networked replication of the business model	• Codified and tacit knowledge • Sharing of values, philosophies and capabilities
Multiplication of market niches	• Knowledge integrators • High sensitivity to changes in demand dynamics	• Repository of shared knowledge • Platform for the incremental flows of information	• Modularization for the replication of the niche model • Networked exploration of new spaces of opportunities	• Abstraction of the business model • Specialized skills • Customer insights

Differently, the second path points to a virtualization of the supply chain and emphasizes the opportunity to select people with specific technical competencies and/or relational capabilities in order to support interactions in a virtual domain.

Moreover, the replication of organizational models (our third path) requires people to have vision and creativity connected with the capability to be flexible in a context that has to be partially formalised.

In the last path, in which firms are involved in a process of replication of their niche strategy, people have to become real knowledge integrators, in order to combine the knowledge generated from the interactions of the service systems involved.

Although our focus is on non-technological innovation, we don't deny technology's importance in innovation. Therefore, it is important to underline that the role of technology varies in the different pathways, but in our cases it plays the basic role of enabling or enhancing the effectiveness of a particular strategy, being frequently an operative framework or a platform for information distribution and value co-creation within the service systems networks.

The creative interpretation of the role of the different categories of resources represents only one of the dimension that characterises the directions of evolution of the service systems we presented in this paper: the creative recombination of the resources represents the other distinctive trait of each pathway that we outlined.

Of course the paper presents some limitations. Since our aim was to sketch out possible directions of change and to identify the declination of the different kinds of resources that SSME is considering, the next step could be represented by a more in depth analysis. These further research efforts might be both qualitative and

quantitative, in order to identify more directions of evolution and to deepen the operational implications of the different roles resources play in the evolutionary paths.

References

Aitken, R., Ballantyne, D., Osborne, P., Williams, J. (2006), "Editorial for the special issue on the service-dominant logic of marketing: insights from The Otago Forum", *Marketing Theory*, Vol. 6 No.3, pp.275-329.

Carr, N.(2003), "IT Doesn't Matter", *Harvard Business Review*, Vol.81, No.5, pp. 41–49.

Chesbrough, H. (2005), "Toward a science of services", *Harvard Business Review*, Vol. 83, No.2, pp. 16–17.

Coombs, R., Miles, I. (2000), "Innovation, Measurement and Services: the new problematique", in Metcalfe, J. S. and Miles, I. (eds.), *Innovation Systems in the Service Economy*, Kluwer Academic Publishers, Boston, pp. 85-103.

de Jong, J., Vermeulen, P. (2003), "Organizing successful new service development: a literature review", *Management decision*, Vol. 41 No. 9, pp. 844-858.

de Vries, E. J. (2006), "Innovation in services in networks of organizations and in the distribution of services", *Research Policy*, Vol. 25, pp. 1037-1051.

Easton, G. (1995), "Methodology and industrial networks", in Moller, K., Wilson D.T. (eds), *Business Marketing: an interaction and network perspective*, Kluwer Academic Publishing, Norwell (MA), p. 411 –91.

Eisenhardt, K.(1989), "Building theories from case study research", Academy of Management Review, Vol. 14,No.4, pp. 532 –50.

Edvardsson, B., Gustafsson, A., Enquist, B. (2007), "Success factors in new service development and value creation through services", in Spath, D. and Fähnrich, K. P. (Eds.), *Advances in Services Innovations*, Springer, Berlin, pp. 165-185.

Edvardsson, B., Gustafsson, A., Johnson, M. D., Sandén, B. (2000), *New Service Development and Innovation in the New Economy*, Studentlitteratur, Lund.

Gadrey, J., Gallouj, F. (1998), "The provider-customer interface in business and professional services", *Services Industries Journal*, Vol. 18 No.2, pp. 1-15.

Gallouj, F. (2002), *Innovation in the Service Economy: The New Wealth of Nations*, Edward Elgar, Cheltenham.

Grönroos, C. (2007), *In Search of a New Logic for Marketing: Foundations of Contemporary Theory*, John Wiley & Sons.

Gummesson, E. (2004), "Return on relationship (ROR): the value of relationship marketing and CRM in business-to-business contexts", *Journal of Business & Industrial Marketing*, Vol. 19 No. 2, pp. 136-148.

Gummesson, E. (2006), "Many-to-many marketing as grand theory: A Nordic School contribution." In Lusch, R. F. and Vargo, S. L. (Eds.), *Toward a Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*. New York.

Halinen, A., Törnroos J.Å. (2005), "Using case methods in the study of contemporary business networks" *Journal of Business Research*, Vol. 58, No. 9, pp. 1285-1297

IFM and IBM (2007), *Succeeding through service innovation: A service perspective for education, research, business and government*, University of Cambridge Institute for Manufacturing, Cambridge, UK.

Kandampully, J., (2002), "Innovation as the core competency of a service organization: the role of technology, knowledge and networks", *European Journal of Innovation Management*, Vol. 5, No. 1, pp. 18-26.

Love, J.H., Mansury, M.A. (2007), "External linkages, R&D and innovation performance in US business services", *Industry and Innovation*, Vol. 14 No. 5, pp. 477-496.

Lusch, R. F., Vargo, S. L. (2006), *The service-dominant logic of marketing: dialog, debate and directions*, M.E. Sharpe, Armonk, NY.

Maglio P.P., Spohrer J., (2008), "Fundamentals of service science", *Journal of the Academy of Marketing Science*, Vol. 36, N. 1, pp. 18-20.

Michel S., Brown S.W., Gallan A.S. (2008), "An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic", *Journal of the Academy of Marketing Science*, 36:54–66.

Normann, R. (2001), *Reframing business – When the Map changes the Landscape*, Wiley, UK.

Pine, II, B. J., Gilmore J. H. (1999), *The Experience Economy_ Work Is Theatre and Every Business a Stage*, Harvard Business School Press, Cambridge, MA.

Prahalad, C. K. and Ramaswamy, V . (2004), *The Future of Competition: Co-creating Unique Value with Customers*, Harvard Business School Press, Boston, MA.

Preissl, B. (2000), "Service Innovation: What Makes It Different? Empirical Evidence from Germany", in Metcalfe, J.S. and Miles, I. (eds.), *Innovation Systems in the Service Economy, Measurement and Case Study Analysis*, Kluwer Academic Publishers, Dordrecht, pp. 125–148.

Schmitt B. (1999), "Experiential marketing", *Journal of Marketing Management*, Vol. 15, pp. 53-67.

Spohrer, J., Maglio P.P., (2008), "The emergence of Service Science:toward systematic service innovations to accelerate co-creation of value", *Production and Operations Managememt*, Vol.17, No.3, pp. 238-246.

Spohrer, J., Maglio, P. P., Bailey, J., Gruhl, D. (2007), "Steps toward a science of service systems", *Computer*, Vol. 40, No. 1, pp. 71–77.

Spohrer, J., Vargo, S. L., Caswell, N., Maglio, P. P. (2008), "The service system is the basic abstraction of service science. In *Proceedings of the 41st Annual Hawaii International Conferenceon System Science*, January, p. 104.

Sundbo, J., Gallouj, F. (2000), "Innovation as a Loosely Coupled Systems in Services", in Metcalfe, J. S. and Miles, I. (eds.), *Innovation Systems in the Service Economy: Measurement and Case Study Analysis*, Kluwer Academic Publishers, Boston, pp. 43-68.

Teece, D., Pisano, G., Shuen, A. (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, Vol 18 , No. 17, pp. 509-533.

Tether, B. S. and Metcalfe, J. S. (2003), *Services and Systems of Innovation.* CRIC Discussion Paper n. 58, February.

Tether, B. S. and Tajar A. (2008), "The organisational-cooperation mode of innovation and its prominence 1 amongst European service firms", *Research Policy*, Vol. 37, pp. 720–739.

Tidd, J., Bessant, J (2008), "Integrating Technological, Market And Organization Change", 4th Edition, Pre-pubblication sample chapter, John Wiley & Sons.

Vargo, S.L., Lusch, R.F. (2004), "Evolving to a New Dominant Logic for Marketing", *Journal of Marketing*, Vol. 68, No. 1, pp. 1-17.

Vargo, S.L., Lusch, R.F. (2007), "From goods to service(s): Divergences and convergences of logics", *Industrial Marketing Management*, Vol. 37, pp. 254-259.

Vargo, S. L. and Lusch, R. F. (2008), "Service-dominant logic: continuing the evolution", *Journal of the Academy of Marketing Science*, Vol. 36 No 1, pp.1-10.

Vargo S.L., Maglio P., Akaka M.A., (2008) "On value and value co-creation: a service systems and service logic perspective", *European Management Journal*, Vol. 26, 145-152.

Yin, R.K., (1989), *Case study research—design and methods* , Sage Publications, London.

Zeithaml, V.A., Bitner, M. J., and Gremler, D. D. (2006), *Services marketing: Integrating customer focus across the firm (4th ed.)*, McGraw-Hill, New York.