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Sustainability Through Service

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The increased demand for more sustainable processes (while considering environmental, social and economic profits), together with the shift in the economy from the goods-dominant to the service-dominant logic and the advance in technology, has significantly changed the way that we design, develop and implement solutions. The combination of services representing the largest and most developed sector of economy as well as the predominant employment sector worldwide, together with the introduction of new paradigms that argues that everything should be viewed as service, i.e., servicelogic dominant, suggests that the focuses on sustainability should, in fact, include also services. Moreover, a solution that is based on services, i.e., intangible products that are mainly based on non-physical resources, instead of goods that require physical resources for their production, is usually preferred from both the economic and the environmental perspectives. In addition, the move from a good-oriented to a service-oriented solution also encourages the customer's participation in the value co-creation process and thus involves a new division of resources and capabilities between the supplier and the client. Thus, it introduces opportunities to increase the responsibility and cooperation of supplier and client and to augment the sustainability of the solution.

Nature provides many services that promote and sustain ecosystems and that directly or indirectly benefits humanity, from food and fuel supply to air cleaning and temperature control by trees or water filtration by swamps, i.e., ecosystem services. In addition, the market of environmental services, which are combinations of scientific, technical, management and advisory activities specialized in the minimization of natural resources use and environmental damage, is also growing in both developed and undeveloped countries. Another route toward sustainability entails the re-design of solutions from the supply side, which consider how goods are produced and services are delivered, or from the demand side, which consider how products and services are used, i.e. green products or services. Furthermore, novel combinations between goods and services to improve their mutual relationships, either by making the production or use of products more efficient by coupling the products with assigned services [e.g., eco-efficient service (ESS)] or by shifting the focus from the sale of physical products to the sale of their utility through a mixture of products and services that offers the same solution but in a more sustainably fashion [e.g., product-service-systems (PSS)], constitutes an alternative to achieve the ultimate goal of a sustainable solution. Yet both ESSs and PSSs are product-oriented solutions, and they are mainly driven by the goal to maximize financial profit. Finally, sustainability should be an integral part of the underlying relationship between customer and provider as well as the relationship between the customer and other stakeholder. Thus every sustainable service should account for all resources and effort that are implemented into the service's core-value, but also via the production

and delivery of a super-value from a customer, which becomes a provider, to other stakeholder, i.e., the current and the future generations. At last, to meet the goal of sustainability while emphasizing solutions that are exclusively or mainly based on services, we defined a sustainability-oriented service innovation framework, termed clean services – CleanServs. While the CleanServ concept covers all the above-mentioned prerequisites, paradigms and models, it goes a step further by extending and defining the connections between service and sustainable development. As such, a CleanServ is a sustainable service that is competitive with, if not superior to, its conventional tangible or intangible counterparts and one that reduces the use of natural resources and cuts or eliminates emissions and wastes while increasing the responsibilities of both provider and customer. In general, CleanServs comprise the five categories (in terms of resource use) of prevention, reduction, replacement, efficiency and offset, and their implementation in certain scenarios enables the overall goal of sustainability to be achieved by reducing the relevant production processes involved in the conventional solutions that they replace. Hence, the definition of CleanServs also extends the role played by service in promoting sustainable development while filling a gap in sustainable service research and development. Finally, implementing CleanServs is expected to advance the current state of the art in sustainable development and in service design and development and to lead to an improvement in quality of life on a global scale.

Towards contributory development by the means of services as common goods

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This paper describes our exploratory approach to enable and sustain the environments-oriented creation of services as common goods. We first discuss the characteristics of services, which allow them to be envisaged as engines of innovation and we study the role of economy of contribution in this innovative development. Second, we present an approach supporting the collaborative innovation-oriented work of actors from multiple domains, which facilitates concretizing services. This is achieved by virtue of "Tiers-Lieu", collaborative environments of service innovation, where services are envisaged as common goods. To illustrate the organization of Tiers-Lieu, we present its conceptual framework, and discuss an example from the domain of mHealth. The paper is concluded with the perspectives of the ongoing work for contributive development within service society.

Towards the Alignment of a Service Provisioning Model of a Service-Oriented System with ITIL v.3

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Being service-oriented in a company helps both at the business and IT layers. Among others, the work organization, the exchange of information or the

modification of existing applications often become easier. However, a very few papers bring solutions for aligning an IT service management (ITSM) framework, which represents the business layer, with the implementation of services in a service-oriented system (SoS), which stands for the IT level. In this paper, we expand the service-oriented development methodology of Papazoglou into the Spiral Model in order to align it with ITIL v.3. The latter is probably the most used ITSM framework in the IT industry. This work should help the staff of companies respecting the ITIL v.3 best practices and owing an SoS in their projects management and in their communication.

A SoaML Approach for Derivation of a Process-Oriented Logical Architecture from Use Cases

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Designing logical architectures for cloud computing environments can be a complex endeavor, moreover when facing ill-defined contexts or insufficient inputs to requirements elicitation. Existing solutions are no longer enough to embrace the challenges brought by complex scenarios and multi-stakeholder realities, as in Ambient Assisted Living ecosystems. As new concepts and cross-domain solutions emerge, these problems are tackled by connecting evermore the world of requirements and architectures, of business and technology, through service-oriented approaches. This due, we propose to extend the Four-Step-Rule-Set (4SRS) method, which has proven successful in generating a proper candidate logical architecture for an information system in ill-defined contexts, to a Service-Oriented Architecture approach for greater business integration, flexibility, and agility, by using the SoaML language. We present the result of a demonstration project, based in an industrial live setting where the 4SRS-SoaML reshaped method was applied, by generating the architectural participants, and respective channels of services and requests.

On the Necessity and Nature of E-Mobility Services - Towards a Service Description Framework

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After years of focusing exclusively on the technological side of e-mobility, services are getting more and more in the focus of scientists. Many recent works concentrate on the identification and analysis of the potential of new business models in this field. Although the relevancy of services for the success of e-mobility is becoming more obvious among industry and science, there is still a lack in scientific contributions when asking for a comprehensive overview of existing e-mobility services. With this paper, we try to bridge this gap by providing a framework that enables the description and classification of services around the usage of an electric

vehicle (EV). The framework captures of five dimensions along which each service can be characterized. By this, the description enables the identification of commonalities and differences between the services and provides an interdisciplinary context for further research.

Study on Correlation between 'Services Innovation' and 'Digital Consumer Economy'

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Keeping in view the shift that has taken place in the global economy consisting of various industry sectors, (from Agriculture sector to Manufacturing sector to the currently prevailing Services sector), we have undertaken a research exploration. Accordingly, the perspectives or viewpoints that will lend a handle towards a reference frame, thru which the currently prevailing (or dominant) Service Economy can be perceived are:
a. Service Economy as Knowledge Economy (Creation of new knowledge)
b. Service Economy as Digital Consumer Economy (Technology enablement of the new knowledge that has been created)
Creation of new knowledge in each of the respective industry sectors can be perceived as the sign of 'Knowledge Economy'. It is aiding in the form of services aimed at increasing the productivity of the corresponding industry sector. On top of it, enabling the respective knowledge using technology can be perceived as the sign of 'Digital Economy'. This has further enhanced the productivity levels of the given industry sector.
From this study we understand that the crux of services innovation research is about unearthing what it means for 'services to enable its own service sector'. As such, services are already enabling both the Agriculture sector and the Manufacturing sector. In a similar manner, the new knowledge that is being created in the Services Sector is expected to contribute in the form of 'services to the service sector' itself. The affinity between service sector and the digital consumer economy can be captured by way of the parameter called 'digital intensity'. 'Digital Intensity' of a company (in an industry sector) refers to the degree to which its core offerings, business processes (especially marketing, sales, and distribution), and customer's experience in using those offerings can be digitized. Accordingly, 'digital intensity' refers to the degree of affinity between 'services innovation' and digitally enabling the services sector.
Some of the sectors that have greater 'Digital Intensity' are Media and Entertainment, Telecom, Banking and Financial Services, Insurance, etc. Their offerings can be fully digitized. And hence they are vulnerable to disruption. The companies in sectors with high digital intensity can expect serious incursions in to their markets. These are companies that primarily belong to Services Sector. The correlation study can further be strengthened from the currently available literature resource. Accordingly, creation of new knowledge becomes a prerequisite in order for us to do the digital enablement. This whole endeavor can gradually aid in transitioning towards unearthing 'what it means for services to enable its own service

sector'. As we undertake Services Innovation Research, the above approach can help in formulating a series of research experiments aimed at unearthing it.

How Social Responsibility Influences Innovation of Service Firms: An Investigation of Mediating Factors

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The purpose of this study is to extend research on corporate social responsibility and to emphasize the role of this concept on innovation performance of service firms using mediators such as customer collaboration, employee collaboration, and business partners' collaboration. This will help identifying the opportunities to improve the innovation capacity of firms. The results indicate that collaboration relationships played a partially mediating role. It acts as significant intermediate variables between social responsibility and innovation performance of service firms. The findings fill a gap in the literature by demonstrating how social responsibility initiatives influence the collaboration mechanisms of the firms through its positive effects on the collaboration between customers, employees, and business partners. They could also lead to the increase of their innovation potential. The managers of the firms using limited resources can stimulate indirectly the innovation by stimulating social responsibility initiatives because these have a multiplicative role in increasing the service firms' innovation potential.

Interrelations of success factors for selling product-service systems from a solution sales perspective

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Many Business-to-Business (B2B) companies are shifting their focus from selling products to engaging in long-lasting relationships with their customers to co-create value. This impacts how companies sell their products and services. Instead of selling isolated products and services in single transactions, companies bundle and individualize their products and service to address individual customer needs. These bundles are called product-service sytems (PSS) or solutions. This work reflects the current body of knowledge on selling PSS based on a literature review and provides new insights based on a qualitative study conducted with three multinational B2B companies providing PSS. Our findings propose that companies struggle to profit from PSS with a variety of different reasons. Implications on PSS itself are not quantified easily due to high variability of accounting practice regarding PSS and their service components. Furthermore, according to our interview results, for achieving long-term success with PSS three factors and their interrelations are critically important. First, PSS must fit into the targeted market strategy. Second, PSS and the market strategy must be consequently implemented within the organizational structure and the conduct of day-to-day business. Third, PSS providers have to deal

with complexity which PSS comprise.

Tourism as a Life Experience. A Service Science Approach Ebron

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Despite what the mere accidental observation could show, tourism is one of the significant experiences for the human beings. Moreover, it is one of the services with most potential for generating wealth. Service Science should be a key for companies and regions to properly design and manage tourist services. This paper describes a study with both sentiment and qualitative analysis carried out using the opinions of foreign tourists in the Philippines. The value of this work lies in providing recommendations on the basis of a systematic study. Thus, the potential of analyzing services through a scientific focus is shown.

Service Convenience on call centers: impacts on repurchase

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Purpose: This study aimed to test the relationship between service convenience, measured through Call Center performance indicators, and customers repurchase behavior and to understand what demographic and contractual characteristics may enhance this relationship. Methodology: A database of 133 783 customers and 376 057 contacts were analyzed in what concerns three Call Center performance indicators, representative of customers' time and effort: First Call Resolution (FCR), Average Handling Time, Insistence Calls and Repeated Calls. Findings: First Call Resolution, Average Handling Time and Repeated Calls were proved to be related to repurchase. Customers at early stages of their relationship with the service, low value customers and those participating on loyalty programs, were the most sensitive to time and effort expenditures on Call Centers. Implications: Understanding the impact of customers' time and effort on customers repurchase behavior and knowing the customers less likely to wait and expend efforts, managers must seek to improve Call Centers performance and select who are the customers to answer first. A better understanding of customers behavior on Call Centers is provided. Future research: Research may study the contribution of service convenience to the customers' experience in other services and seek to understand who convenience-oriented customers are, what influences their convenience demand, when they are willing to spend time and efforts and how can they co-create convenience in services. Originality: This study is among few empirical studies on service convenience, assessing real customers' behavior instead of behavioral intentions. Contractual characteristics strengthening the relationship between service convenience and repurchase were found.

Disclosing paths for multi-channel service research: A contemporaneous phenomenon and guidelines for future investigations

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The present paper reports on the findings of a systematic literature review on multi-channel services. In doing so, it uses an affinity diagram to show the results of a content analysis regarding the issues addressed by the existing literature in the field. This enables to understand areas of interest in the contemporary subject of research, find gaps in the literature and, lastly, to uncover guidelines for future research. The results suggest that future investigations should focus on the integration of traditional and virtual services, on quality issues and customer behaviour towards the use of multi-channel services. Previous research also suggests that multi-channel services are largely unaddressed, regarding issues as back-office processes, within the scope of operations management. Subsequently, since multi-channel services are multidisciplinary in nature, these guidelines represent a fruitful opportunity for future research to involve other disciplines.

Evolution and overview of Linked USDL

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For more than 10 years, research on service descriptions has mainly studied software-based services and provided languages such as WSDL, OWL-S, WSMO for SOAP, and hREST for REST. Nonetheless, recent developments from service management (e.g., ITIL and COBIT) and cloud computing (e.g. Software-as-a-Service) have brought new requirements to service descriptions languages: the need to also model real-world services and account for the multi-faceted nature of services. Business-orientation, co-creation, pricing, legal aspects, and security issues are all elements which must also be part of service descriptions. While ontologies such as e3service and e3value provided a rst modeling attempt to capture a business perspective, concerns on how to contract services and the agreements entailed by a contract also need to be taken into account. This has for the most part been disregarded by the e3 family of ontologies. In this paper, we review the evolution and provide an overview of Linked USDL, a comprehensive language which provides a (multi-faceted) business description to enable the commercialization of (real-world and technical) services over the web.

An agile BPM system for knowledge-based service organizations

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This paper presents a business process management (BPM) system aimed at knowledge-based service organizations. The core activity of these organizations consists on the delivery of high-valued services tailored to each customer. When compared to product-based organizations, service organizations have more dynamic and diversified business portfolios and business processes, due to the need to adapt to evolving customer needs. The efficiency of business process management (BPM) solutions is widely recognised as far as high volume standardized processes are concerned, but the unsuitability of these systems to handle customizable service requests is also widely acknowledged. With this in mind, a new BPM platform, hereafter referred to as the soBPM platform, was designed and deployed. This platform is intended to offer a higher degree of flexibility, both at process design-time and process run-time. The platform implements a soft-automation process management approach that will be discussed in the first part of the paper. Then, the deployment of the platform at the Shared Service Center of a large University will be presented.

How do consultancies innovate - and why should we care?

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The European consulting market amounted to € 92.4 bn billion in 2011 (FEACO, 2012) and it is expected to continue its remarkable growth in the coming years. Consulting services help both private and public organisations redefine their strategies, improve their operational efficiency, optimize their technical and human resources, streamline their processes and increase their innovativeness. Business consultancies have become a key shaper of the contemporary organisations, playing an important role in the knowledge economy by serving as knowledge sources and "re-engineers" (Muller and Zenker, 2001). As consultancies are expected to continuously help their clients become more competitive, they need to stay at the very forefront of innovation themselves. Indeed, they are often the originators of novel management concepts and models (such as the already legendary BCG Growth-Share Matrix, the McKinsey 7S Framework or The Arthur D. Little (ADL) Matrix). Yet, despite their important role in the innovation of other organisations, little is known about how they themselves innovate their services. This is unfortunate, because managers and scholars alike could learn a lot from the way consulting companies organize their innovation process. Consultancies are fascinating organisations, gathering brilliant minds and operating in an extremely knowledge-intensive, increasingly networked context: "management consultancy is a rapidly changing world where new players, disciplines and capabilities are continuously being integrated into the profession; where borders are continuously expanded and horizons recede until [the] trade becomes a global network of businesses, covering a wide spectrum of areas that only a few years ago had not yet

been imagined" (FEACO, 2014). Consultancies play in the market where speed of the innovation is key, thus where New Service Development (NSD) is expected to be highly proficient. Still, innovation scholars have not yet sufficiently taken advantage of learning about their approach to service innovation. This paper focuses squarely on this gap and addresses the question "How do consultancies innovate?". Our work is based on a detailed case study of three high performing management consultancies in Europe. Next to observation and analysis of organisational documentation, we have performed 29 in-depth interviews with interviewees from 15 different locations in Belgium, Italy, Spain, Sweden, Switzerland, The Netherlands and United Kingdom to discuss their organisations' approaches to the NSD. Following the accounts of service innovation processes at the three single case organisations, we carried out a cross-study analysis, aimed at looking for similarities and differences, deepening the understanding of the topic and enhancing the research generalizability through a replication strategy (Yin, 2009, Miles and Huberman, 1994). Several approaches have been applied in this process: memos in nVivo software, 'within-category sorting' and 'cross-category clustering' leading to 'summary tables', cross-case synthesis word tables for pattern identification, 'making contrasts and comparisons' and 'stacking comparable cases method', as well as diagrams for summarizing and visualizing the findings (Miles and Huberman, 1994, Yin, 2009). As a result, we identify 40 organisational practices in order to shed more light on the actual activities consultancies undertake in their service innovation efforts. We also develop a service innovation framework of consulting firms, proposing that they use what we might call a 'parallel' model of service innovation. In general, 'project economy' is used as predominant structure for dealing with new service development. Additionally, as consultancies do not carry out research activities as such, they need to create separate organisational solutions such as excellence centres or innovation labs to proactively design new services. Thus, they develop both 'reactive services' (created ad hoc, on specific client request, in a service case context) as well as 'proactive services' (the ones developed internally, usually more long-term, outside of the service case context) in a parallel way, organisationally distinguishing between the two tracks. Both modes are actively supported by and contributing to organisational experience base organised around 'solution packages', 'qualifications', methodologies, tools, sales teasers, position papers, casework and proposal   documentation. More importantly though, we discuss how our findings can benefit service innovation theorists and practitioners in general by providing new insights regarding the NSD process. First, our results strongly indicate that the unstructured, informal NSD process involving a combination of market pull-triggered reactive project development and 'innovation labs' type of work defined at the board level can be conceptualised as the very mechanism consultancies practice organisational ambidexterity (Andriopoulos and Lewis, 2009) in the context of service innovation. Second, our work points to the salience of interplay between project-, service- and portfolio-levels of service innovation management. Even though project development and innovation are sometimes regarded as "an impossible equation" (Aggeri and Segrestin, 2007), we argue that project-based approach is a natural setup for non-standardized, knowledge-intensive services. Indeed, literature on the topic shows that organisations can greatly benefit from a project-based structure in the capability

development context (Manning and Sydow, 2011, Sydow et al., 2004). What is clearly required, though, is the smooth transition from the project- to the service-level of innovation. That is when the capabilities of 'de-contextualising' and 'leveraging' (Gryszkiewicz, 2013) come into play. Service-level is not the end of the service innovation management ladder, though. Our results suggest that while most attention is still being paid to NSD projects and services, it is actually the management of services portfolio what has potentially higher 'leveraging' potential for service innovation, as by extending the boundaries of the service development to the portfolio level, new possibilities emerge (Magnusson and Martini, 2008, Newey and Zahra, 2009). Finally, in terms of practical contributions, this paper gives managers an opportunity to look behind the scenes of mature and successful service organisations and learn about service innovation practices that have proven effective for them. While to an extent organisation-specific, these practices can serve as inspiration for managers looking for new ways to improve the way their organisations' approach the development of new service offerings.

Technological Trends in the Sport Field: which Application Areas and Challenges?

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This paper investigates the application of new technologies in the sport field. Technology, mainly information technology (IT) and internet, is deeply changing the overall picture of the sport sector. New technologies facilitate the knowledge transfer in the sporting event management process, such as the Olympic Games; at the same time, the innovative techniques can significantly affect the athletes' performance and the social integration of disabled persons. There is an explosion of technology applications in the sport field in different sub-organizational areas, but this phenomenon is still underrepresented in the literature. This paper aims to identify and evidence the main application areas and challenges faced by technology in the sport setting. This study, through a review of the literature, represents a research starting point that allows us to systematize and clarify the main contributions on this topic and to identify new research perspectives.

Shared Services: Exploring the New Frontier

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The increasing pressure towards the review and the reduction of the public expense has pushed public and private sectors to reshape the way in which collaborate in deploying activities. Amongst the several sourcing options, sharing services is one of the latest to emerge, with the shared service organizations (SSOs) assuming a leading role. Such a solution overtakes the traditional insourcing/outsourcing practice via the implementation of special-purpose vehicles

and the adoption of an alternative business model that has prompted Information and Communication Technology (ICT) providers to evolve into this new species of enterprise. The case study reported here analyses the route taken by an Italian publicly owned company that reengineered its approach into that of an SSO to become a reference point for its customers and their ICT strategies. The subsequent general reflection on the changes under way is aimed at inspiring the debate around the re-design of organizational activities through service management, and also supports the continuity of the basic organizational logics that inform the practices of public SSOs.

Relationship Bonds and Customer Loyalty: A Study across Different Service Contexts

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The benefits of customer relationship strategies are well known and somewhat established nowadays. Thus, many research efforts had been focused on identifying and examining the determinants of keeping long-term profitable customer relationships. Customer loyalty emerges as the crucial glue in developing a relational approach. However, relational bonds, which relate to customer loyalty, have not yet been fully explored. Also, there is little research that takes into account the moderating effect of service types on customer relationships and bonding. This paper develops a conceptual framework with a complete set of different relational bonds and examines its influence on customer loyalty across different service types. The results provide guidance to managers to differentiate customer relationship strategies according to the specific service context in which they operate in.

Verifying the Image-Dominant (ID) Logic through Value Cross-Creation between Social and Imagined communities

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This article focuses on examining the existence and impacts of image-dominant (ID) logic at collective level. The purpose is to test whether social and imagined communities can create value for each other, in other words, can value actively be cross-created between communities. The data was gathered in a service industry from two closely related social communities (SC) (N=264 and N=460) where each SC represents the other respondents' imagined community (IC). Structural equation modeling (SEM) is used for analyses. The identical SEMs from both data sets indicate that value can be cross-created between communities: collective awareness among individuals' SC members is discovered to create value to another SC; and the collective image of the other community among individuals' SC members is revealed to create value for their own SC. The contributions produced by the article are the introduction and verification of the concepts image-dominant logic and value cross-creation.

Exploring opportunities to improve retail store quality using RSQS

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1.Purpose

This paper presents an application of the importance-performance analysis (IPA) to identify opportunities for improving service quality in retail contexts. This work builds on retail quality literature, notably on previous applications of the retail quality service scale (RSQS) [1], to collect data regarding customers' quality expectations and perceptions across two different retail store formats: supermarkets and hypermarkets. IPA has been subject to several extensions and debates, but still offers important guidelines for the prescription of priorities for improving quality attributes [2].

Service quality plays a decisive role for retailers' differentiation and profitability. Retailers compete on quality dimensions such as facilities, convenience, etc. [3]. In this study we inquired customers about relevant retail quality dimensions (i.e., physical aspects, personal interactions, reliability, and policies) and we investigated the existence of differences in their respective importance and performance in supermarkets   and   hypermarkets.
Some examples of previous research efforts to compare distinct retail formats can be found in service literature (e.g., [4] addressed differences in customers' quality perceptions for hypermarkets and traditional retail; Goldman and Hino [5] looked at supermarkets and traditional retail). These contributions do not explicitly address differences between supermarket and hypermarket formats, which are prevalent retail outlet models today, offering distinct service delivery attributes to their customers. Relevant differences include: store surface (about 4,000–10,000 m2, in hypermarkets towards the average supermarket size of 1,500–4000 m2); assortment variety (e.g., hypermarket assortments are typically deeper); percentage of floor space assigned to different categories (groceries often being up to 40% in supermarket outlets and 25% in hypermarkets) [6]. These differences bear important implications for service delivery experiences (e.g., degree of customer effort) and quality.

2.Design/methodology/approach

Data collection was supported by a 24 item questionnaire applied to a sample of retail customers of supermarkets and hypermarkets in Portugal. Questionnaire development, based on RSQS scale, involved exploratory customer interviews. A total of 248 valid responses were analyzed, with preliminary descriptive statistics and testing for differences in customers' assessments across supermarkets and hypermarkets. IPA was conducted and differences investigated again across retail formats. Following the approach of [1], the importance of the retail quality attributes was derived from customers' expectations, whereas performance was based on perceptions. Their classification into low, moderate, and high values, led to four quadrants to position the different quality dimensions considered (Fig. 1). Dimensions placed in the first quadrant (competitive vulnerabilities) require greater efforts from the company than those in the second quadrant (competitive strengths) to boost the customer satisfaction. For dimensions in the third quadrant (irrelevant

superiorities) the re-channelling of resources should be considered. The fourth quadrant (relative indifference) includes attributes not requiring immediate attention.

3.Findings

The results of the study suggested that managerial decisions regarding service in stores should be adjusted to the characteristics of each retail format. Data analysis supported the existence of differences in the IPA, between supermarkets and hypermarkets, notably for quality dimensions related to reliability (RE) and personal interaction (PI).

In a nutshell, results (Fig. 2) indicates that customers perceived higher service quality for hypermarkets for all of the service quality dimensions considered. Customers revealed high quality perceptions for the dimension of policies (PI) for both of the retail formats. This result can be explained by the numerous promotion and discounts campaigns that pursued by this type of retail competitors, to which customers are very sensitive. Reliability (RE) stands out as the most important dimension calling for immediate managerial level action (i.e., competitive vulnerability), whereas physical aspects (PA) seemed to have received enough care from the addressed retail companies (i.e., irrelevant superiority). A counterintuitive result was found for the dimension of personal interaction (PI) for which customer ranked superiorly in the hypermarket formats, whereas the expected result would be to find a higher relational proximity in smaller neighbourhood based supermarket stores.

4.Relevance/contribution

This paper offers a timely contribution to understand differences in service delivery quality across two retail formats, which have important differences in the service process experience offered to their customers. Given the differences in various service delivery elements (such as store format, assortment, etc.) found between supermarkets and hypermarkets this study sets up to provide a contribution to understand the implications of such differences to customers' assessment of quality. The outcomes of the study have conceptual, as well as managerial relevance, and may prove particularly useful for assisting service differentiation for multi-format retailers.

How to Encourage the Use of Public Transport? A Multiservice Approach Based on Mobile Technologies

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It is crucial to promote the use of cleaner transport modes, and new technologies are key to achieve this goal. Most mobile-based solutions are focused on services related with the journey itself (mobile ticketing, real-time traffic information and trip planners). Adopting a holistic point of view, and considering every trip has a purpose (work, school, shopping and entertainment), a new service approach is considered. This paper presents a multiservice approach that links city services and public transport to encourage the use of sustainable transport modes. This multiservice approach is based on mobile technologies, which are a unique channel of interaction between service providers and customers. The conceptual

model of this approach is materialized in a concrete example. This multiservice approach may represent a step towards a sustainable mobility, while improving the image and efficiency of Public Transport Operators (PTOs), boosting local businesses loyalty and sales and bringing convenience, better service quality and monetary savings to customers.

Towards an IT-Based Coordination Platform for the German Emergency Medical Service System

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The German healthcare service system is facing a number of challenges in the years to come, prominent among these a decreasing number of hospitals and practices dealing with an increasing number of treatments and patient transportation tasks. In this paper, we introduce the idea of building a decision support tool to improve scheduling of patient transportation in the German Emergency Medical Service (EMS) system to reduce waiting times and costs, as well as increasing reliability. We outline a service platform on which the decision support tool could be realized and integrated with existing systems in EMS coordination centers. The paper thus introduces a promising approach for one of the main challenges of the German EMS system and builds the basis for further research on transport scheduling and healthcare services.

Towards a Framework of Influence Factors for Value Co-Creation in Service Systems

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According to modern service science theory, value is jointly generated by several partners forming a service system. In this work, we focus on a simple two-party system consisting of a service provider and its customer. The value created by this service system hinges on the contribution of both parties. That is, it also depends on the collaboration of the customer, which is a key characteristic of services in traditional definitions. Providers, however, lack knowledge on how to identify and measure the influence factors for value co-creation, such as customer contribution. Being aware of customer contribution, providers could design and manage value propositions purposefully. In this work, we provide a first version of a framework of influence factors for value co-creation in service systems, which may serve providers as a guideline for identifying different types of customer contribution.

E-health and value co-creation: the case of Electronic Medical Record in an Italian Academic Integrated Hospital

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The objective of the paper is to study the use of service science to create a systematic service innovation in the health environment. Starting from the basic abstraction of service science, which is considered as value co-creation when people, technology and value propositions are connected by internal and external service systems and shared information, the paper aims to explain the benefits of the electronic medical record (EMR) and its business and organizational impacts in an Italian Academic Integrated Hospital. The research method is based on a case study and on connected semi-structured interviews. The qualitative study shows the co-created value, i.e. the impacts of introduction and development (consolidation) of EMR on efficacy and efficiency of the organization, on data collection and processing, error reduction, sustainability of SSN (national health service) and especially the better quality of services to the citizens.

Knowledge sharing and value co-creation: designing a service system for fostering inter-generational cooperation

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This paper highlight the necessity of knowledge transfer and sharing between young and old people, to avoid losing their skills and tacit knowledge and to co-create value. The paper indicates that a common place could facilitate the exchange of knowledge and experience between these two generations, thus fostering value co-creation. Enterprises, in this era of unprecedented technological and scientific advance, need of knowledge to create a competitive advantage and they mustn't lose it. At this aim, paper finally introduces a case study, the "5020 project", an intergenerational agreement for work and training, made through a platform of recruitment and work team creation. Based on this platform, the project fosters knowledge transfer, creating teams composed by young and old people, which working together in ICT field, share the knowledge acquired in the past (respectively at school and on the job), co-create value and offer it as a better service to enterprises

How to control a service project

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Project control systems often fail to support management in achieving their global project goals. Control means planning, measuring, monitoring and taking corrective action. Typically, projects utilize a control system, which monitors the

difference or gap between the planning variables and the actual results. Project control indicates the direction of change in preliminary planning variables compared with   actual   performance.
Project control systems can be classified as: (1) one-dimensional control systems; (2) multidimensional control systems. In one-dimensional control systems, such objectives are not integrated in any way, whereas multidimensional control systems integrate several project control objectives. A very known multidimensional control system is the Earned Value (EV) system that integrates cost and schedule control. The EV system was introduced in the USA during the 1960s and was used mainly in defense   projects.
This paper proposes a Multidimensional Project Control System (MPCS) as an approach to quantifying deviations from the planning phase to the execution phase with respect to the global project control specification (GPCS). The projects' current state must be translated into yield terms, which are expressed as a gap vector that represents the multidimensional deviation from the global project control specification. The MPCS methodology allows the project manager to determine: integrated project status; where problems exist in the project; when and where to take corrective action; and how to measure improvement. However, implementing the MPCS methodology does not require extra data collation. MPCS deals with the control of a single project and defines the project performances in comparison with the plan.

Agent Based Simulation of Trust Dynamics in Dependence Networks

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Online communities can be seen as service systems, in which actors interact providing, requesting or sharing resources for [co-]creating value. On the basis of the resources needed/owned for achieving a goal it is possible to draw several dependence links among the actors (agents), creating a dependence network. On the other hand, since trust is the key coordinating mechanism in community based organizations, by analyzing the dynamics of trust in dependence networks is possible to better understand the behavior of this kind of service system, viewed as a complex social systems. In this paper we develop an architecture of cognitive agents and of the environment in which they act and interact. This architecture will be the basis for implementing a platform for agent based simulation that serves as a tool for investigating the dynamics of information sharing, collaboration, and collective action within different service systems

Towards a Cyberinfrastructure for Social Science Research Collaboration: The Service Science Approach

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Research collaboration in a globalized world has become one of the most

important challenges for higher-education today. As a matter of fact, collaboration between researchers all over the world is still an intricate and difficult challenge, which is the motive for this study that aims at filling this gap in the field of social science research. Based on the review of the literature, we propose a conceptual framework for designing a cyberinfrastructure to promote the collaboration among researchers across institutions. We present an example to illustrate the application of the framework that supports international collaboration between a research laboratory in a developed country and its partners in developing countries. Future work and research directions are also suggested in order to apply and extend the framework at a broader scale.

A Service Oriented Architecture for Total Manufacturing Enterprise Integration

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The paper describes a, framework and implementing issues addressing service orientation in the management and control of enterprises. A hybrid, semi-heterarchical control model based on the paradigm of holonic manufacturing is proposed; it switches its operating mode from hierarchical to heterarchical in the presence of perturbations to ensure both global optimization and agility to changes in batch orders, while featuring robustness to disturbances in the production environment. In order to ensure these conflicting functionalities, a service oriented architecture is proposed and implemented, whose structure includes a distributed fault-tolerant Resource Service Access Model. Besides the design of a generic structural and dynamic model, a real implementation solution is proposed using a multi-agent framework.

Towards a Conceptual Framework for Classifying Visualisations of Data from Urban Mobility Services

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Urban mobility services generate massive amounts of raw data that are usually not explored in depth by the entities who own them, and could benefit from visualisation techniques to improve knowledge extraction and decision-making, as well as to support the reengineering of those services. Some studies provide a context-independent classification for visualisations based on their own characteristics and the data they support. Acknowledging the user-centric nature of Information Visualisation, we propose a classification for visualisations according to context of use and certain data characteristics. Our first results are encouraging and follow from a user-centred design process with urban mobility experts, in which we developed and evaluated a set of visualisation prototypes. The outcomes form a first effort towards a conceptual framework proposal for classifying visualisations of this domain, and are expected to guide those who are searching for adequate ways of

visually representing the data they have.

Education on Service Science Management and Engineering: A Comparative Analysis

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Approximately 60% of the world's workforce is currently employed by either public or private branches of the Service Sector and this value rises to 80% in developed countries. There is also a tendency towards constant growth in the Service Sector at an international level, with people working in a broad spectrum of areas such as tourism, commerce, logistics, finance, insurance and community, social and personal services. However, and in spite of the fact that society increasingly needs more professionals who are oriented towards this sector, there are hardly any specific training plans for service professionals. This paper presents a comparative analysis about training programs in Service Science Management and Engineering (SSME). This comparative analysis was made during the definition and creation of a new curriculum for training of professionals in SSME which will be taught at the Rey Juan Carlos University, in Madrid, Spain, from the next academic year onwards. The degree is briefly described in this paper and analyzed in the comparative analysis.

Business School Innovation Through a Service Science Approach: Organizational and Performance Measurement Issues

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In many cases, there is a serious gap between the needs of real-world organizations and the skills that business school graduates actually develop dur-ing their studies. In order to close this gap, innovative pedagogic solutions can be implemented in business schools, such as hands-on, work-group information systems courses; but such changes may imply serious budget and organizational problems, also because of the inertial nature of university institutions. Service science is emerging as a very promising approach to tackle the challenges implied in such practice-oriented, demand-driven innovation of educational services. In this paper, we apply a service science approach to propose a bottom-up re-design of the educational service system in a representative case: the School of Management and Economics of the university of Turin, Italy. We identify the network of stakeholders and propose a model in which students, graduates and firms interested in hiring specialized personnel play an active role in co-creating the value delivered by the university educational services. Finally, we outline the main performance measurement and organizational issues implied by this project.

Service Oriented Acquisition Models for Serving Products with Short Expiration Period

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Most services face uncertain demand (in terms of quantity and time), and the related inventory must be managed accordingly. This paper analyzes and finds solutions to extensions of the well-known Newsvendor problem. While the Newsvendor problem is a single period model, the first extension is related to products with life span of small number of periods. We solve this variation by using dynamic programming approach. The second variation is a discount bundle on several items with constraint of a minimal quantity of bundles. The third variation is a minimal service level constraint. Solutions to these models can serve as tools for acquisition managers, and service providers. Future research may use these model as a basis for solving further extensions and variations.