The strategic transition to services; A dominant logic perspective and its implications for operations.

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Introduction

The recent transformation of industry, characterized by saturated and commoditized global environments and where companies strive to attract and retain customers, has pushed manufacturing organizations to rethink their traditional dominant logic based on the provision of artefacts. Research and anecdotal cases have shown that competing on the basis of product-delivery strategies has its limits, whereby companies' continuous race towards the market proposition of advanced technological and functional features into a product could translate into the value destruction of their own business (Oliva and Kallenberg 2003; Gebauer and Friedli 2005).

On the contrary, the development of differentiation strategies rooted in the productservice paradigm may represent a key element for competitive advantage (Matthyssens and Vandenbept 2008; Brax and Jonsson 2009). It is recognized that over one-third of large manufacturing firms offer services (Visnjic Kastalli, Van Looy and Neely 2013). The success stories of General Electric, IBM, Rolls Royce Aerospace, Siemens and Xerox are just some of the popular examples of how competing on the basis of a service-based business model allows for prosperity in markets affected by weak demand, hard competition and decreasing margins (Quinn, Doorley and Paquette 1990; Reinartz and Ulaga, 2008; Spring and Araujo 2009).

The growing importance of services in manufacturing has been underlined by a noticeable upsurge in studies on a phenomenon, widely acknowledged with the term of *servitization of manufacturing*, which has been characterizing the scientific and

managerial literature since its first appearance in 1988 (Vandermerwe and Rada 1988). Different schools of thought, related to a multitude of disciplines, have sought to explore the variegated angles and facets of the phenomenon, often adopting various geneses, motivations and cultural and methodological approaches.

After 25 years, the research communities have been converging around a common understanding: in essence, it is a transformational journey, which commits industrial organizations to move along a continuum, from the provision of products and artefacts, through the proposition of product-service solutions, to a change in their structural and infrastructural capabilities and decision-making processes.

Despite the economic (Cohen, Agrawal and Agrawal 2006; Wise and Baumgartner 1999), financial (Brax 2005; Neely 2009), strategic (Gebauer, Fleisch and Friedli 2005; Oliva and Kallenberg 2003) and marketing benefits (Gebauer and Fleisch 2007; Corra et al. 2007) of servitization, the literature has underlined that most firms find it extremely difficult to provide services effectively (Spring and Araujo 2009). As revealed by surveys, servitization often means higher investment costs and a greater risk of failure and bankruptcy, due to companies' incapability to boost the sovereignty of services and develop the same awareness towards service with their partners and customers (Gebauer, Fleisch and Friedli 2005). This involves the inability to transform service-based interactions into resource-efficacy or cost-efficiency (Håkansson and Waluszewski 2002, 2007). Several studies demonstrate how firms cannot merely add services to their original goods-dominated offerings to evolve into well servitized organizations (Gaiardelli et al. 2014; Martinez et al. 2010; Cavalieri and Pezzotta 2012).

There is still debate over whether an effective servitization journey would requires a radical and abrupt change in the way organizations think about their operations and value delivery. For instance, the effect of selling outcome-based services such as the miles per gallon from MAN Trucks and Busses Ltd or the EffiFuel service provided by Michelin, as opposed to selling products such as trucks or tyres, radically changes the way in which industrial firms operate (Martinez et al. 2011). It forces organizations to learn about new operations and strategies, such as service contracts, pricing, selling, asset management and risk sharing, in order to propose the promised service: value and experience to customers.

However, as much as the service dominant logic (SDL) foundational premises shape the understanding of a service offering and its market implications (Vargo and Lush 2004, 2008), they lack the strategic, functional and tactical directions for organizations to apply. The organizational changes and adaptation encapsulated in servitization, the action of transformation to services, still appear to be an unexplored topic. Most of the existing studies still dwell on a static and spotted perspective, where the suggested organization and business models are functional in order to respond to the need and emergence of new single services in the company's offerings, rather than being part of a deliberate evolutionary process (Demil and Lecocq 2010; Davies 2004; Gebauer 2008). The lack of contributions in theory validation, extension and refinement from an organizational transformation perspective appears to be hindering the development of more robust and mature studies addressing the question of how a business model founded on a product-service paradigm evolves.

On the contrary, successful stories of servitization suggest that the evolution and change of entire business models towards new service transition strategies include adjustments to customer value propositions, design of the operational and delivery systems, capabilities, organizational structures, customers and partner network relations (Baines and Lightfoot 2013; Evans, Partidário and Lambert 2007; Galbraith 2002). This transition demands a cultural evolution that pervades the overall firm, its network and the ecosystem in which it operates (Martinez and Turner, 2011; Oliva, Gebauer and Brann).

Research into servitization dynamics and paths, barriers and enablers, including more extensive studies on service-transformation behaviors, is thus needed at a more fundamental level in order understand the adjustments to new service strategies and the forces that influence the transition to services.

Hence, the motivation and the main objective of this *Special Issue* is to provide a contribution to the debate on understanding the transformation process that industrial companies are experiencing, by identifying the main organizational and operational drivers which would enable and foster their transition to services.

New research in service transitions: The papers selected for this Special Issue

The papers founding this *Special Issue* were selected based on their appropriateness to its objectives and scope, as well as in terms of quality, innovativeness and complementarity. In response to this call, 56 extended abstracts were submitted from 18 different countries; only 48percent (27 abstracts) were accepted by the reviewers' panel and invited to submit full papers. To provide a fair review process, a three to

one ratio was performed; in other words, three independent anonymous reviewers were allocated per paper. Seventeen full papers were submitted and met the requirements in the first round of reviews. As a result, 10 papers were accepted with corrections and invited to resubmit. Three more rounds of reviews were performed and, finally, eight papers emanating from six different countries consolidated this *Special Issue*.

The Special Issue has a threefold perspective:

- first, it discusses the industrial standing of servitization in the manufacturing context;
- second, it investigates the role of space, time and alignment in the transition to services;
- and finally, it introduces the capabilities that support the service change.

Industrial standing of the transition to services

The first paper of this *Special Issue, "Servitization Adoption: A Delphi study to explore the adoption of servitization in UK companies"*, by Baines and Shi (2015), opens the discussion with an examination of the impact of servitization on organisations that have succeeded either as providers or consumers. A Delphi research methodology has been applied to capture evidence and opinions from senior executives operating in different-sized UK companies with regards to the role of servitization in their context, the drivers, enablers, inhibitors and organizational change affecting their transformation process, the related impact on the customer and manufacturer and the potential for business and the economy.

Space, time and alignment in the transition to service

Space, time and alignment play an important role in working the transition to services. In this *Special Issue* three papers debate and illustrate how space, time and alignment affect firms in the transition to services.

Regarding space, the second paper, "Service manoeuvres to overcome challenges of servitisation in a value network" by Löfberg, Witell and Gustafsson (2015), investigates the challenges - at intra-firm and network level - that different actors face as a result of servitization throughout a value network in the automotive industry consisting of 13 companies. The research identifies some manoeuvres as a set of tactics to overcome the challenges. For instance, the creation of partnerships between

firms and suppliers to deliver solutions could overcome a perceived lack of control, while the service manoeuvre of establishing new value-network constellations was key to solving the challenges present in business relationships.

Regarding time, the third paper, "Accessing servitization potential of PLM data by applying the product avatar concept", by Wuest, Hribernik and Thoben (2015), discusses the time element in the transition to services through the lens of a lifecycle model. The paper shows how product-service offerings, particularly complex or highend ones, need to extend their life in order to leverage their full value. The product avatar is the proposed approach to support servitization, based on product-lifecycle information and closed-loop PLM, in order to fulfil the specific background, individual interests, needs and habits of the single stakeholder of a complex high-value product throughout all its lifecycle phases.

Regarding alignment, the fourth paper, "Internal and external alignment in the servitization journey: Overcoming the challenges", by Alghisi and Saccani (2015), discusses the alignment issues arising in the transition to services. The research found that the two crucial elements of the internal alignment of firms are service strategic intent and service portfolio. The two key elements of external alignment are firms' service strategies and service network and customers. Both internal and external alignment are a key to reaching the stability of a firm in periodical transitions.

Supporting capabilities that support the change to services

Considering the limited number of articles eligible for publication within the same *Issue*, three supporting capabilities in the strategic change to services stand out as being more relevant: service contract management, service pricing and service co-design capabilities.

The fifth paper, "Servitizing manufacturers: the relationship between service complexity and contractual and relationship capabilities", by Kreye, Roehrich and Lewis (2015), investigates the influence of increasing levels of service complexity on transformation within the buyer-supplier relationship, with an in-depth case study analysis of a PSS provider and two of its customers in the by health-care sector. In particular, the paper describes the relationship between service complexity and the development of contractual and relational capabilities.

The sixth paper, "Pricing strategies of service offerings in manufacturing companies", by Rapaccini (2015), stresses the importance of mastering the capabilities for pricing service at the early stages of the transition to services. It explores the relationship between servitization and innovative pricing practices; then, it identifies the factors that inhibit or favour the company's manoeuvre to change pricing strategies, and examines the capabilities requested for favouring these changes.

The seventh paper, "Exploring the servitization path: a conceptual framework and a case study from the capital goods industry", by Peillon, Pellegrin and Burlat (2015), adopts a conceptual framework – built upon eight descriptive dimensions - in order to investigate the evolutionary path of servitization in a company operating in the capital goods industry, and to show its relevance as a support for the diagnosis of consistencies in the company's strategic choices.

The final paper, "A Framework for Managing and Utilizing Product-Service System Design Knowledge", by Nemoto, Akasaka and Shimomura (2015), demonstrates how the design of a product-service offering, or even a pure service, requires a broader range of knowledge. In the transition to services, firms that succeed and stand above their competition are those that identify, combine and exploit different sources of knowledge in the delivery of services.

Main findings and points for future discussion

The papers selected in this *Special Issue* provide meaningful responses and pose new challenges for the future advancement of research. Considering the aim and scope of this *Issue*, we highlight some of the most relevant and insightful evidences.

Factors triggering the need to servitize - Two overarching insights were found to be crucial by Baines and Shi (2015) in their extensive survey on the industrial standing of servitization. First, the early adopters of service strategies have largely shifted to services to protect their commercial viabilities; the transition to services positively enhanced these early adopters' resilience (revenues from products/services are on average split 50/50) and enabled overall business growth (5-10%). From the customers' perspective, they were motivated to acquire these services to improve their financial structure, risk profile, and efficiencies around asset management; the knock-on effect on them is motivated by significant cost reductions and, in some cases, business growth as a result of improved service performance.

The risk of irreversibility of the servitization path - The study by Peillon *et al.* (2015) reveals how the servitization path is a non-reversible integration of product and service activities rather than a continuous transition from a pure product to a pure service offer. The authors call for caution when suggesting that manufacturers go further in investing in service strategies, if detrimental to investments in product-related competencies, which, at least for complex engineering systems, are still required to build a relevant, integrated, product-service offering. There could be a point of no return that a firm should not cross at the risk of losing its core technical competencies.

A relational rather than dyadic perspective between supplier and customer – In line with the foundational premises of service dominant logic, Kreye, Roehrich and Lewis (2015) demonstrate how developing and maintaining relational capabilities (value-in-context) is more important than contractual capability (value-in-exchange) as the level of service complexity of their offering increases. Manufacturing companies need to improve their relational capabilities with their customers, such as establishing relational routines and behaviour (for example, through formal and informal service engineer visits), exchanging knowledge and information and building up interpersonal and inter-organizational trust (for example, increasing levels of appropriate information exchange). This is also in line with the main findings of the work of Wuest, Hribernik and Thoben (2015), who maintain how, by involving and networking with the stakeholders - including the customer - throughout the whole product-service solution lifecycle, the potential for additional revenue and customer loyalty increases.

Ambidexterity of companies – Many of the papers included in this *Special Issue* point towards the incapability of most companies to manage their ambidexterity, both in exploiting their existing business and exploring new product-service solutions. Servitization is not an on/off process, but instead requires the coexistence of traditional and innovative strategic and operational patterns. The transition from a goods- to a service-dominant logic can be traumatic for a company if there is no proper alignment between the strategic orientation and the tactical and operational practices, whether at the pricing and contractual level (as the paper by Rapaccini, 2015, points out) or at the internal organization level, aligning service design, service

delivery and customer relationships (Nemoto, Akasaka and Shimomura 2015) and communication and interface capabilities (Alghisi and Saccani, 2015).

The need for a socio-technical perspective of servitization - The literature on service strategy emphasizes the need to unravel the bundle of human, organizational and technological competencies required in a transformation process. The case study reported in Peillon, Pellegrin and Burlat (2015) shows how the risk of a split arises between employees whose activity is focused on service operations and those whose activity is focused on manufacturing. This risk stems from the very nature of the work done: based on exploration and creativity in the former case versus routine and exploitation in the latter. Hence, further research on Human Resource Management should be carried out to improve our understanding of the consequences of service development on human resources and their management of the relative trade-off.

At the end of this editorial process, we really hope that the content of the papers selected for this *Special Issue*, their insights and directions could be thought provoking for researchers, inspiring and driving them for their future research activities. Given the richness and thoroughness of case studies and practices thereby reported, we are also confident that practitioners and professionals could get relevant models and solutions for mastering at best the transformation process they are currently experiencing in their companies.

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