WHAT SERVICE TRANSITION? A CRITICAL ANALYSIS OF SERVITIZATION PROCESSES

Abstract

Studies of servitization processes in product-based firms generally describe a transition process from basic, product-oriented services towards more advanced, process-oriented ones, eventually leading to the provision of integrated solutions. The concept of firms going through a service transition is frequently used in both academia and practice. However, using case study research based on longitudinal analysis of servitization and innovation processes in ten product-based firms, we question the generalizability of these established conceptualizations. Instead, we argue that servitization is not always about moving from less to more advanced services. A firm offering a wide range of services may nevertheless have fragmented service operations in a product-based business, an opaque service organization, and unsystematic service development, thereby constantly failing to meet sales targets and profitability expectations. The number and range of services offered should therefore not be a sole proxy of a firm's servitization efforts. Furthermore, servitization is not only a matter of moving from less to more advanced services but also about utilizing the knowledge gained from the largest, most advanced service contracts and solutions; there is often an inherent potential in downsizing, standardizing, and formalizing elements of the most advanced services and solutions, and to make use of these when offering also less complex services in an efficient and effective manner.

Track: Innovation in Industrial Networks

Keywords: Servitization, service transition, marketing strategy, systems selling, key account management

Category: Work-in-progress paper

INTRODUCTION

Increasingly, product-based firms in various business markets have found that their products have moved, or are moving, towards becoming commodities (Gebauer & Fleisch, 2007; Kowalkowski et al., 2012; Matthyssens & Vandenbempt 2008). This leads to increased difficulties in creating a competitive advantage with merely physical goods. These companies realize that their products and those of their competitors are becoming more and more interchangeable in terms of quality and functionality and this will become even more pronounced as global low-cost competition increases (Fischer et al., 2012). If there is no clear distinction between competing companies' product offerings, the customer will often select the supplier with the lowest price (Anderson, Thomson, & Wynstra 2000). However, when price is compared to other possible differentiators, such as spare parts and basic support services, product price alone becomes less important. But here too, an increased amount of spare parts imitations have

further obstructed traditional competitive advantages. Additionally, dedicated third-party service suppliers with strong local presence are taking over service contracts (Kindström, 2009). These circumstances have made many product-based firms turn to the provision of industrial services and hybrid product-service offerings in order to strengthen their competitive advantage and move away from the "commodity trap" (Mathieu, 2001; Potts, 1988; Ulaga & Reinartz, 2011). For product-based firms such as lift and escalator manufacturer Otis and "lifting businesses" company Konecranes, industrial services have grown to become major part of their total profits, with profit margins several times those of their products.

The empirical phenomenon by which manufacturing firms increase their focus on service has frequently been referred to as "servitization" (Baines et al., 2009; Vandermerwe & Rada, 1988). Studies of servitization processes in product-based firms generally describe a transition process from basic, product-oriented services towards more advanced, process-oriented ones, eventually leading to the provision of integrated solutions (i.e., complex, customized product-service offerings). The concept of firms going through a service transition is frequently used in both academia and practice (e.g., Fang et al., 2008; Henkel et al., 2004; Matthyssens & Vandenbempt, 2010; Oliva & Kallenberg, 2003; Penttinen & Palmer, 2007). However, Kowalkowski et al. (2012) argue that the servitization phenomenon is multifaceted and does not imply a unidirectional development towards the provision of more extensive services per se. Furthermore, Windahl and Lakemond (2010) argue that "Instead of a continuous process from products to services to solutions… firms experiment concurrently with a number of offerings. Basic and advanced service agreements and integrated solutions co-exist along with the sales of tangible goods."

Based on this, possibly more nuanced, picture of servitization emerging, and influenced by Alvesson and Sandberg's (2011) proposal for problematization as a methodology for identifying and challenging assumptions underlying existing literature, the purpose of the paper is to critically analyze servitization processes in product-based firms. By linking servitization research to earlier research on systems selling and key account management we review and question the validity of the service transition concept. Methodologically, the study is based on longitudinal case studies of servitization and innovation processes in ten leading product-based firms. We argue that the established representation of servitization as a transition process from basic to more advanced services is many times not only too simplistic but can even be fallacious, leading to erroneous theoretical and managerial implications.

CONCEPTUAL BACKGROUND

Servitization is frequently described as a service transition process. Often, the service transition is described as a trajectory, taking place sequentially in two dimensions (e.g., Matthyssens & Vandenbempt, 2010; Oliva & Kallenberg, 2003; Penttinen & Palmer, 2007). For example, Oliva and Kallenberg (2003) distinguish between a focus on customer interactions and a focus on the value proposition. Penttinen and Palmer (2007) developed a similar two-dimensional framework. They analyzed the strategic repositioning of four manufacturers in different industries and they too argue that an expansion in the two dimensions is most likely sequential; firstly a move from a transactional to a relational nature of the customer-provider relationship and secondly from less to more complete offerings, or vice versa. With a more complete offering, the coordination costs typically increase, but if the firm can manage to control or reduce these costs there is an

economic incentive to enhance the completeness of the offering. Both Oliva and Kallenberg (2003) and Penttinen and Palmer (2007) identify the continuum from transactions to relational exchange as a main attribute of the two-dimensional service space. However, whereas Oliva and Kallenberg (2003) put the focus on the value proposition without considering the actual service structure/portfolio (i.e. bundling), Penttinen and Palmer (2007) consider degree of product/service bundling and extension in meeting customer needs as the second attribute (see Figure 1).

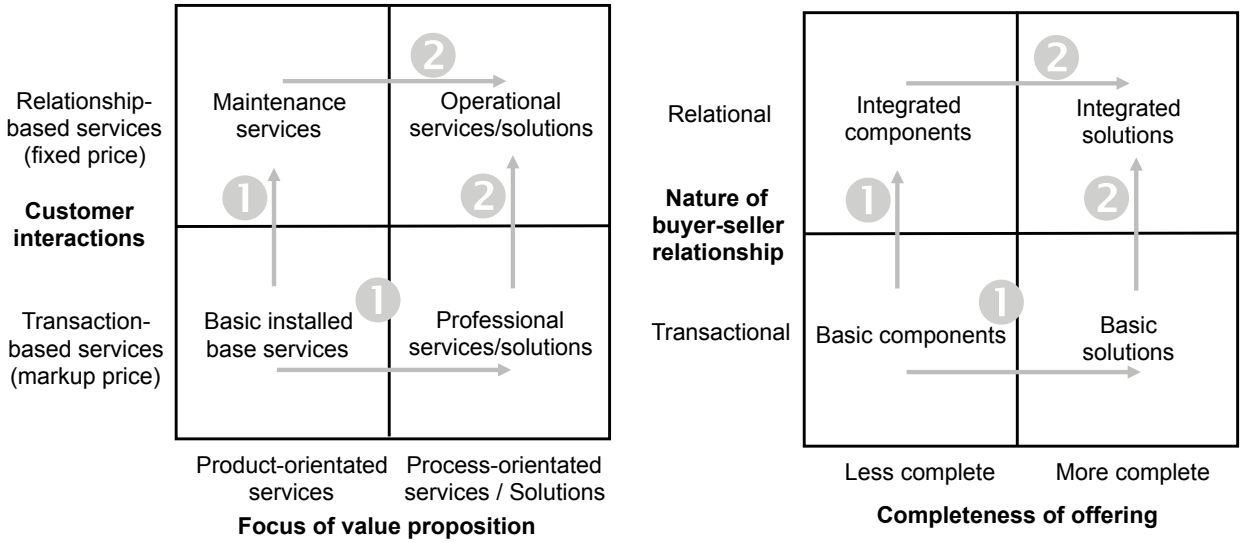

Figure 1. Service typology and service transition trajectory frameworks (Oliva & Kallenberg, 2003, p. 168 and Penttinen & Palmer, 2007, p. 554).

When firms reach the top-right box in frameworks such as those in Figure 1, they are generally regarded as offering integrated solutions, consisting of integrated product-service hybrid offerings. The rapid growth of literature on solutions might give an impression that offering solutions is a relatively new phenomenon (see Nordin and Kowalkowski (2010) and Tuli et al. (2007) for overviews). However, the general view of solutions (e.g., Brady et al., 2005; Ceci & Prencipe, 2008; Hax & Wilde, 2001; Sawhney, 2006) is basically no different from definitions of systems selling going back 30-40 years (Hannaford, 1976; Mattsson, 1973); that is, the provision of products and services as integrated systems that provide solutions to customer's operational needs. Thus, it appears that product-based firms have been providing these types of complex, hybrid offerings long before most studies of servitization have taken place (i.e., the last decade), in which forms eventually end up offering solutions.

Prior research has found that key account management (KAM) skills and some form of KAM organization are needed to provide complex services and solutions (Brady, Davies, & Gann, 2005; Gebauer & Kowalkowski, 2012). However, in KAM literature the increasing emphasis on KAM is often related to more powerful and demanding customers shaped through corporate mergers (Homburg, Workman & Jensen, 2002). The emphasis on KAM can also be internally motivated, as a response to increased structural complexity (e.g., a geographical dispersion of customer locations, several units within or across national borders, involvement of multiple functional units) and operational complexity (e.g., the need for a variety of product lines, services and/or technically advanced systems with demands and needs for advanced fulfillment

systems and/or advanced commercial solutions) (Brehmer & Rehme, 2009). For example, in the case of the industry conglomerate ABB's European operations, Brehmer and Rehme (2009) argue that the KAM program was formed to support system selling that includes new components and subsystems from different companies in the ABB group. The focus of the KAM program and its managers was mainly on establishing and managing an internal cross-divisional sales organization in order to increase the sales for the group; and creating an awareness of the competences that ABB had, so that each sales engineer had the ability to channel business opportunities to the right ABB division. Thus, we can see that firms have various external and internal reasons for creating KAM organizations, which might facilitate the provision of complex services and solutions, albeit it might be a side effect rather than a primary driver.

METHODOLOGY

This research is based on longitudinal analysis of servitization and innovation processes in product-based firms in a wide variety of industries and markets. The companies analyzed come from a pool of manufacturing firms taking part in different research projects between 2002 and 2012. We selected firms that 1) allowed extensive access to key respondents at different hierarchical levels, and 2) to an extensive degree pursued servitization activities and initiatives in key European markets. In addition, we aimed for firms that would yield qualitative richness and diversity of data. As a consequence, we selected a number of firms that we collaborated extensively with throughout the projects. The firms are: Bosch Packaging (packaging lines and systems), Crypto (communications and information security), Ericsson (telecom), Linde Gas (industrial gas), Metso Minerals (mining equipment), Saab Group (aviation and defense), Toyota Material Handling (materials handling), Tetra Pak (processing and packaging systems), Volvo Buses (buses), and Xylem (pumps and fluid handling).

For each case we have conducted several rounds of empirical investigation and interviewing at different organizational levels, including key decision makers at both the central and local organizations. Data were collected by means of face-to-face interviews, workshops, and internal and external secondary data. The data analysis was based on detailed write-ups about each firm. When collecting the data, however, we did not necessarily specifically focus on the firm's servitization processes. Rather, we were guided by more specific research questions such as how to organize for service offerings in multinational firms, differences between new product and service development, and service strategies. Worth noting is the fact that we conducted the case studies in different researcher constellations, sometimes independent of one another. Only later did we come together to analyze the cases with the particular objectives to critically analyze servitization processes in product-based firms and to challenge the assumptions underlying existing literature (see Storbacka et al., for a detailed description of a similar research process).

Interestingly, the dominant approach to research on servitization and integrated solutions, as in most other research (see Alvesson and Sandberg, 2011), is to spot or construct gaps in existing theories, which reinforces rather than challenges existing theory. However, independently of each other, we as a group of researchers found that established conceptualizations did not properly reflect the servitization processes that had been going on in the cases that we have studied in depth and followed over several years. Thus, the objective of our study emerged as a natural consequence of the insights gained through prior theory and data analysis. Rather than gap spotting, this methodology to generate the objective of our study is what Alvesson and

Sandberg (2011) call problematization. Since we already had comprehensive data for each case when the research objective was established (and several published articles on various servitization-related topics), no additional data was collected. Instead, the cases were critically reexamined in the light of the new research objective. Since this paper so far is work-in-progress, the analysis is still taking place. More granular case descriptions and a comprehensive synthesis of the empirical findings are yet to be finalized. Nevertheless, we have already found support for our questioning of servitization as a unidirectional service transition process only. We intend to show this support in the remaining sections of the paper.

FINDINGS

We show that many firms for several years, or even decades, have been offering both basic, standardized after-sales services and advanced, highly customized solutions. These innovative, high-value-added solutions, which are often offered to large key account customers and which may include performance-based contracting or gain-sharing agreements, sometimes resemble large-scale development projects and project-based sales. For example, many firms have offered systems selling and complex project sales since the 1970s. These offerings include many services and such offerings should not necessarily represent an end point of a service transition process or matrix. Hence, many times, servitization is not a matter of a unidirectional transition from products to services. Compared to the past, firms may work more strategically and systematically with their service business today. However, this is not the same as moving towards more advanced offerings with higher service content along a transition line.

There are basic commonalities across the cases; the firms have all moved to provide few extensive, customized offerings via relational means and they strive to more systematically extend their offering, both proactively and reactively. Main drivers for five of the cases are summarized in Table 1 and examples of the servitization processes in four firms in our sample are given next (remaining data is still being analyzed).

Crypto and Bosch Packaging

Both Crypto and Bosch Packaging have been providing services for decades. Services were always added to the product. When they started to think about developing the service business, they had two points of departures. They consisted of two business units offering different types of products. The first business unit focused on standard machines (products). The second one offered systems (or solutions). The standard products more or less required very few services. The solution business already integrated a wide range of services. The business, sales and customer logic are different for both units. Both units had complete different requirements for the service business development. The standard product unit favored to sell services for a specific price. The requirements are sometimes contradictory, sometimes neutral, or sometimes provide synergies. Contradictory requirements are related to the service sales approach. System (solution) business did not depart from integrating the service prices into the solution offering. Another contradiction comes from the service goals. Solution business favored customer satisfaction as the main service goal, whereas Product business wanted to have service revenue as an important goal. Synergies were observed in recruiting, training, and retaining service employees. The challenges actually are to balance these requirements. Interestingly, once the service business development has reached a certain critical mass. Service business itself develops

its own requirements. It means that you have now three different requirements, which somehow have to be matched. A critical point here is the service profitability. The service business aims at achieving service profits. However, purely focusing on highly profitable services would erode the customer satisfaction and additional service revenue favored by the product and solution business. The actual service business development is determined by how firms and managers balance the initial two and later three requirements.

Table 1. Drivers for transitions from basic to more advanced services and from integrated solutions to less advanced services.

Company	*Drivers for more advanced services*	*Drivers for scaling down and industrializing advanced services and integrated solutions*
A	Increased customer demand due to service outsourcing and specialization	Stronger customer bonds and retention, revenue growth, and utilization of service organization
B	Consolidation and outsourcing of services among strategic account customers, process technology development	Steadier, counter cyclical revenue streams, greater customer retention, and process technology development
C	Increased customer demand, government policy, internationalization	Revenue growth, decreased dependence on key customers, utilization of installed base
D	Utilize specialist competences, build brand, maintain market leadership, stimulate growth	Encourage customer retention, build brand reputation, increase differentiation, protect core business
E	Increased customer willingness to outsource, utilize specialist competences	Low-cost competition, product commoditization

AGA/Linde Gas

AGA is the North European regional division of Linde Gas. Historically, it has always gone that extra mile in order to secure their core business (industrial gas) and to retain customer relationships. Traditionally they did not charge for their services but today they do charge for a majority of the services (up to 40% of the turnover come from service or service related offerings depending on how services are defined). Although they do develop basic offerings, often geared towards small and medium sized firms that have no interest in buying more advanced services or solutions they also have a number of advanced services that are offered to larger customers with more complex demands. These more advanced service include process development/optimization and operational support in the customer's processes, equipment maintenance, and ICT-based services focusing on business and gas management processes. In

some instances these are developed for one customer. Some of these services are also offered under a different brand. Many of the basic services are often offered in order to stave of low cost competition and to increase customer retention. These are priced relatively low and in certain situations also given away for free. The more advanced services are often priced with different types of functional agreements. The service organization is extensive and AGA offers the entire range of services in-house.

Volvo Buses

Volvo has a number of advanced contracts with uptime and managed services. They also offer a wide range of more basic services (such as repair) as well as a range of different service contracts (SLAs). ICT development enables them to add new functionality and new services. The more advanced services are developed with key customers that are addressed on a contractual level and are specific for each customer. This implies that the offerings are large enough to warrant special solutions and to justify a single focus. Their more basic services, and their SLAs are standardized to a much greater extent and include specified components and are sold off-the-shelf in many cases. These services are sold through an extensive dealer network (that to a great extent is independently owned). The advanced services and solutions are developed and managed directly by Volvo Buses. While the firm is working on increasing its service business and "moving from products to services" it also offers complex, output-based solutions to leading customers. An example is the agreement between transport operator FirstGroup and Volvo in which the bus maker would ensure ongoing vehicle availability for FirstGroup's operations in the UK. By focusing on achieving low-cost bus miles and no breakdowns, the contract drives home the concept of value-in-use from the customer's point of view. The value proposition includes: referral value; increased involvement in and influence on vehicle specification; the opportunity for Volvo to find ways to beat the stipulated cost saving in order to generate additional financial feedback; and opportunities for business innovation. In addition, Volvo gains knowledge and experience from extensive solutions like this one, which can be used when developing also less extensive service agreements (and better insights into how the products can be designed for the service market).

DISCUSSION

The most common development trajectory, also in our cases, is to extend more basic offerings in order to generate higher revenue and create competitor lockout by increasing the inherent value through increased service content (introducing more advanced offerings). By widening the portfolio and by including more services that address a wider range of customer needs, companies can create the possibility of reaching previously unaddressed customers with industrial offerings, instead of maintaining transactional product sales. One common strategy for this is to design bundled offerings with evaluation criteria that are different from product based performance indicators, such as availability and usability. An important aspect is to analyze the position and movement of the customer, whether the customer is mature enough to buy more advanced services and what value the customer would perceive as an order winner. Different resources are needed depending on where the customer is located and this should have implications regarding how companies design their portfolios, as it is not necessarily so that revenues are higher for more advanced services. What is needed is a portfolio that captures the different needs of different customer segments. However, our cases also illustrate another service

transition trajectory; there is often potential to simplify or scale down the most advanced services and solutions (a development potential) and to standardize included elements, thus making it possible to address a larger customer base. This development holds great potential for creating a wider offering portfolio and finding partners for co-development.

One conclusion from the reasoning above is that many manufacturing companies focus their development of services and industrial offerings on specific large key account customers while the larger customer base is seen as traditional product customers. This means that companies do not fully exploit their business potential and therefore miss out on growth opportunities and positive effects such the knowledge and relationship development needed to increase competitiveness. Through an increase of knowledge and competence regarding customers' needs, companies can develop new, wider, and customized services that attract a larger customer base. Thus, the firms have basic, standardized offerings, often marketed and sold in the same way as a physical product, with limited service components. The service components of these product-oriented offerings typically consist of reactive maintenance and repair activities. At the same time the firms also offer complex, process-oriented offerings to a small number of large key account customers. These offerings are many times extremely customized and often have various functional characteristics; that is, integrated solutions (Davies, 2004; Tuli, Kohli, & Bharadwaj, 2007). These offerings are situation specific and are not put on a market as part of a standard portfolio but rather resemble project-based sales. These offerings are not only goods and service bundles as such but rather process-centric, cooperative development projects with complex contracts, sometimes including cost and profit sharing schemes. By downsizing the offerings and standardizing various elements, thus being able to offer parts to a greater number of customers albeit in a simplified form, many of the firms are capitalizing on the knowledge and experience gathered in these more complex time-consuming and relational intensive offerings.

Traditionally the majority of the case firms' offerings have high-quality, premium-price products sold on product performance characteristics. But the case firms' have also "quantum-leaped" into more advanced offering, mostly acting reactively to, and being driven by, the demands of large influential key-account customers. Developed, long-term relationships, often locally established, and a successful track record have enabled those opportunities, often driven by increased pressure on the customers (from their customers) for improved business performance and agility. As one senior service executive stated:

"*If a key account customer forwards new needs, customization is always a possibility. What is challenging is to "industrialize" and offer extensive service to other non-key account customers; that is, the major part of our customers*".

The opportunity to industrialize service operations through scaling down has often been neglected but is of great interest due to at least three reasons. First, not all customers want to outsource all service activities, thus the potential for more advanced services and integrated solutions may be limited. Despite the attention given, these extensive offerings often constitute only a minor part of leading manufacturers' offerings (Nordin & Kowalkowski, 2010). Second, there is a large unaddressed customer segment, in many cases from an already existing customer base (through product sales) with a potential for an increased share of wallet (cf. Krishnamurthy, Johansson, & Schlissberg, 2003). Third, firms that already have the competences to offer basic as well as more advanced offerings are well positioned to extend their market offering to this 'untapped' opportunity.

CONCLUSIONS AND IMPLICATIONS

Contrary to established conceptualizations of servitization as a product-service transition process, we argue that servitization is not always about moving from less to more advanced services. A firm offering a wide range of services may have fragmented service operations which face 'step-motherly' treatment in a product-based business, an opaque service organization, and unsystematic service development, thereby constantly failing to meet sales targets and profitability expectations. The number and range of services offered should therefore not be a sole proxy of a firm's servitization efforts. Furthermore, our longitudinal studies suggest that servitization is not only a matter of moving from less to more advanced services. By showing that servitization is a more multifaceted process than established service transition models suggest, this research contributes to the growing stream of research on service marketing and operations in manufacturing firms. For managers, this highlights the potential of utilizing knowledge gained from the largest, most advanced service contracts and solutions. Often, this knowledge and experience can be used for downsizing, standardizing, and formalizing elements of the most advanced services and solutions, and to make use of these when offering also less complex services in an efficient and effective manner. The insights provided in this paper may also help managers break free from 'transition-like' thinking and identify new service opportunities.

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