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# CREATING AND SUSTAINING CUSTOMER VALUE THROUGH SERVITIZATION

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## ABSTRACT

*Servitization as a re-direction from a product-oriented to a customer-oriented business focus addresses traditional product manufacturers and requires their services executives to establish a transition towards a solution-based business. This transition has received a high level of attention within the past two decades and in particular during the past ten years in current literature. However, in spite of the published manifold motivations and advantages, the actual level in the achievement of a successful servitization status is still very low. The current paper aims to shed some insights on the importance of servitization and its implications to marketing strategy.*

**Keywords:** Servitization, solution-based business, products, customer oriented, value

## INTRODUCTION

In the past, German manufacturers, and in particular the German capital goods industry, achieved a competitive edge and favourable differentiation positions through the focus on product attributes, such as quality and technology. Saturated markets, globalisation, new market entrants and advanced information technologies render these potential differentiation practices less advantageous. Product functionalities have become increasingly similar, and price and quality experience are of no particular advantage any more. As a consequence, revenues and margins have been eroded and fierce competition has grown (Baines *et al.*, 2007; Peschl, 2010).

During the past two decades, customers have increasingly expected that manufacturers would assist with solving their particular business problems rather than just providing products and goods (Reckenfelderbäumer, 2004; Kleine, Lay and Schneider, 2009; Woisetschläger, Backhaus and Michaelis, 2009). It is considered that a combination of customer demand (Mathieu, 2001; Neu and Brown, 2005, Neeely, 2008, Baines, Lightfoot, Benedettini and Kay, 2009) and the profound shift in the customers' definition of value for availability, capability and operability (Ward and Graves, 2007) leads to a move from product-oriented services to solution-based services, as Mathieu (2001, p. 458) points out:

*“Clients want more value and this value is connected to the use and performance of systems; they want solutions more than just products or services; they want to take advantage of their suppliers' know-how and not just their product; they want an integrated and global offering and are reluctant to do business with several suppliers; finally, they want customised relationships.”*

This, paired with a global economic situation of slower growth, commoditisation and core products under profitability pressure further offers a traditional manufacturer the opportunity to respond accordingly to growing customer demands by a transition to servitization. This dynamic forced manufacturers in Germany to consider a strategic re-positioning of their past legacy tactics and seek new, innovative directions in order to compete directly with product competitors. One avenue constitutes a re-orientation from being a traditional product provider to a provider of business solutions for customers (Antioco *et al.*, 2008). This transition aims to

create value by integrating goods and services (Scheer, Grieble, Klein, 2003) and establishes new customer relationships. The product itself is assumed to be no longer the prime factor in the exchange of goods (Vargo and Lusch, 2004). This transition is characterised as a strategy moving from a goods-dominant to a service-dominant direction, providing and selling solutions (Lusch, Vargo and Wessels, 2008) - Figure 2 illustrates this move. It also implies that material products have to be complemented by immaterial services in order to form an individual and customised problem solution (Neu and Brown 2005; Sawhney 2004; Vargo and Lusch 2004), as epitomised for example, by the companies Alstom: "Total Train-Life Management", Ericsson: "Turnkey solution to design, build and operate mobile phone networks" and Thales: "Training solutions on a pay-as-you-train basis".

## CONCEPTUAL FRAMEWORK AND CONTEXT

Compared with the amount of existing literature of the academic "legacy" disciplines, the literature that addresses the tactical diffusion of servitization can be regarded as nascent and as reasonably manageable. The notion "from products to services" denotes a phenomenon in which traditional product manufacturers attempt a re-orientation of their operation from a product-centric perspective towards a customer-centric perspective. The purpose of the re-orientation is to provide solutions for customers' business processes by adding value through the provision of solution-based services. The ultimate aim is, by optimally combining and integrating products and services that create value for customers operation, processes and business as solution-based services, to achieve a position as a preferred service organisation and thus improve the competitive position in the market and increase earnings.

This phenomenon was defined under the notion "servitization" by Vandermerve and Rada (1988, p. 314) as "the increased offering of fuller market packages or bundles of customer-focused combinations of goods, services, support, self-service and knowledge in order to add value to core product offerings." At the same time they also declared: "services are performed and not produced and are essentially intangible" which underlines the increased potentials for differentiation. This opens a possible train of thought leading to the definition of solution-based services. After a hesitant start, a growing number of concepts, descriptions and studies appeared in academic literature around the definition of the concept of adding value. All definitions however, aim at the same intent. Using the notion servitization as a kind of umbrella term, most concepts branch into certain directions. The most popular servitization frameworks surfaced between 1988 and 2011. They were, listed chronologically and according to their first occurrence in the literature: "bundling" (Eppen *et al.*, 1991), "product service" (Samli, Jacobs and Willis, 1992), "service package" (Fitzsimmons and Fitzsimmons, 1994), "going downstream" (Wise and Baumgartner, 1999), "product-service system" (Goedkoop *et al.*, 1999), "solution" (Shepherd and Ahmed, 2000), "full service" (Stremersch, Wuyts and Frambach, 2001), "integrated solution" (Davies, 2001), "functional sales" (Lindahl and Ölundh, 2001), "eco-efficient producer" (Zaring *et al.*, 2001), "installed base service" (Oliva and Kallenberg, 2003), "functional product" (Alonso-Rasgado *et al.*, 2004), "industrial services" (Brax, 2005), "winning in the aftermarket, (Cohen *et al.*, 2006), "integrated product and service offering" (Sundin *et al.*, 2006), "new service model" (Antonacopoulou and Konstantinou, 2008), "functional products" (Kumar and Markeset, 2007) and "service imperative" (Bitner and Brown, 2008). These contributions are spread across a wide variety of publications with the characteristics of academic, professional, industry-related works or case studies, conference proceedings, government briefings and project reports. Although there is still a lack of a common definition and terminology, the common denominator for all of them is represented by an approach for a new service-dominant logic by providing services rather than goods as a fundamental re-orientation in the exchange of goods as well as a logic that could be applied to any sector, industry or organisation (Windahl and Lakemond, 2010).

However the notion "traditional product manufacturer" spans the product-manufacturing sector from mass-manufacturing for durable consumer products or mass component provision to mechanical engineering to complex steel and plant construction. Taking this into consideration, the question of a general applicability across the total manufacturing industry remains (Grove, Fisk and John, 2003; Stauss, 2005). Furthermore the literature seems to over-emphasise the view on consumers in preference to the industrial markets (Lovelok and Gummesson, 2004), emphasising management differences between intangible services and tangible goods (Bowen and Ford, 2002; Vargo and Lusch, 2004) and thus frequently missing the opportunities stemming from an integrative aspect more suited to the capital goods industry (Windahl and Lakemond, 2010). Resulting from

this, the insight of how products and services are to be integrated in the capital goods industry, what opportunities and challenges are tied to this transition about the type and nature of provided services as well as the determining factors for resources and service mix, is barely existent (Grove, Fisk and John, 2003; Oliva and Kallenberg, 2003). The aim of this dissertation is to explore how product manufacturers in the capital goods industry might apply the concept of servitization, and identify the inherent consequences in order to be able to deliver augmented customer value.

## SERVITIZATION AND CUSTOMER VALUE

Underlying this transformation is the customers' increased demand to focus more on the value generated by the product manufacturer in the context of the acquired product, rather than on the sole physical properties and functionalities of the product itself, as posited by Tan, Matzen, McAloone and Evans (2010). Accompanied by this phenomenon is the transformation of the market: Schreiner (2003) affirms that the seller markets will convert into buyer markets. A number of advantages will result from the integration of products and services for the internal and external stakeholders involved. Baines *et al.* (2007) point out that customers benefit from factors such as a distinct customisation capability of the delivered solution-based services or the degree of services flexibility to provide new functionalities in a rapidly changing customer business environment (Baureis, 2013). Thus, solution-based services providers open up new opportunities for differentiation, new markets and revenue potentials. Market analyst Forrester Research (Radjou, Ross and Shey, 2007) augments this view by forecasting a profound change in traditional services towards a business services industry (value-added services). Furthermore AMR Research (Burkett and Ruggles, 2008) also shows in its study a services gross profit of 50-70% in the manufacturing industry. This indicates that the strategic importance of the service business may outpace the product business by far (European Commission, 2001). Similarly, the Harvard Business Review (Cohen, Agraval and Agraval, 2006) suggests an evolving global service revenue potential of more than one trillion USD. Surprisingly however, in spite of all the business opportunities and competitive advantages promised by the prevailing literature during the past two decades, the reality sees only a few "hidden champions". As previously stated, the majority of the manufacturers either advances hesitantly or stalls after the initial steps (Woisetschläger, Backhaus and Michaelis, 2009).

This requires clarification about the actual achievements and penetration of the solution-based service market. In 2001, International Business Machines services revenue surpasses hardware revenue for the first time as one of the few solitary examples. According to Booz Allen Hamilton, 63% of the Fortune 100 companies already operate as solution sellers (Sharma, Lucier and Molloy, 2002). In contrast however, the study by the University of Mannheim (Klimmer, 2010) reveals a gap between aspiration and reality: services in the German capital goods industry achieve 14.8% revenue and 15.8% profit (2009). Although the majority of manufacturers claim a broad spectrum of services, the largest proportion is tagged by traditional services like repair and maintenance. Service contracts, monitoring of operational parameters (Davies, 2001) and a service such as lending and leasing equipment are available only from a minority of manufacturers. Klimmer's work (2010) indicates that 25% of manufacturers have no distinct service-marketing concept and, even if such a concept exists, it rarely contains specific service revenue and product specific service properties in order to gain competitive advantage. A mere 23% of the manufacturers state that they generate customer value. Furthermore, according to Stanley and Wojcik (2005), there are only a few solution-oriented companies who perform better in terms of revenue and gross profit growth than their traditional product-oriented rivals - 25% of them even operate at a loss. In addition, Fang, Palmatier and Steenkamp (2008) note that a firm's service success can only be achieved if its service sales have reached a critical mass of 20-30% of total sales. Baveja, Gilbert and Ledingham (2004) describe this transformation as being problematic and obviously accompanied by a number of obscured conceptual challenges, barriers and limitations, as pointed out by Zahn (2010). Evidently still quite a substantial number of manufacturers' service organisations endeavour to attain the status of business and profit contributor (Gebauer, Pütz, Fischer, Fleisch, 2009, Marks *et al.*, 2011). Numerous articles provide evidence of abort or failure. These challenges are primarily induced by the emergent complexity caused by the integration of products and services compared with the sole provision of products and matching historic services, such as repair and maintenance, as shown by Baureis (2013). As Zahn (2010) pinpoints, this can be attributed to manufacturers addressing these increased complexity challenges in an unsystematic and non-strategic manner, resulting in insufficient readiness. Oliva and Kallenberg (2003) reason that, by building on their past functional and economic success of historic product-related services, manufacturers plan and develop solution-based services

only in an ad hoc manner and thus do not meet customer requirements. Thomas and Nüttgens (2010), argue that in order to avoid the loss of service opportunities, the planning for solution-based services requires stringent and integrative development and operational processes. The nature of the causes is demonstrated in related literature to be manifold. Baureis (2013) concludes exemplarily that the internal structures of manufacturers obstruct the holistic re-orientation and new formation of development and management processes for the entire manufacturing company.

Kawohl, Evanschitzky, Woisetschläger and Ahlert (2009) point out a number of prerequisite transformation conditions. Moreover the foundation of a re-orientation constitutes a paradigm change that ought to result in the re-structuring of the past manufacturer's operation as a condition to be able to provide solution-based services. In reality, however, as Rau, Lienhard and Opitz (2002), Zahn, Foschiani, Lienhard and Meyer (2004) and Baines *et al.* (2007) reveal, manufacturers frequently do not implement elementary planning and development functions for solution-based services. Currently however, a clear strategic understanding of how to approach the solution-based service market, which the manufacturers' function is best positioned to start, how to set out to form the necessary competencies and capabilities and how to develop a strategic service infrastructure in order to proceed further after the initial start are apparently lacking in the industry. The emerging era of "Industry 4.0", the multifarious fields of the application of 3D printing in combination with the Internet of Things will result in an unprecedented demand on the operational overall equipment effectiveness and continuous operation of customers' business and production processes, as put forward by Mittelhäußer (2013). This evinces a certain urgent relevance for manufacturers in their re-orientation towards servitization. As Peschl (2010) indicates, there is a lack of understanding of what servitization involves and how the practical transformation to servitization should take place. This lack is addressed by this research.

## MANAGERIAL IMPLICATIONS AND CONCLUSION

The servitization approach requests practitioner services executives to re-orientate their service delivery function towards solution-based services that assist customers in solving their business problems. In addition to the goods-dominant logic and service-dominant-logic of Vargo and Lusch (2004) Windahl and Lakemond (2010) place a solution logic as a further exchange element with certain boundaries and implied orientation focus. These approaches mainly endorse either products that are complemented by services or services that support products or stand-alone services. Oliva and Kallenberg (2003) suggest in contrast a service continuum in which manufacturers transform from a product provider to a solution provider over time. Moreover, the extant literature, adapting the work of Oliva and Kallenberg (2003), marks the value of product-oriented services as "low-end" services and the customer-oriented services as "high-end" service. This might generate a conceptive illusion that customer value may only be generated, by pushing the service delivery orientation towards solution-based services.

Servitization as a re-direction from a product-oriented to a customer-oriented business focus addresses traditional product manufacturers and requires their services executives to establish a transition towards a solution-based business. This transition has received a high level of attention within the past two decades and in particular during the past ten years in current literature. However, in spite of the published manifold motivations and advantages, the actual level in the achievement of a successful servitization status is still very low. Various avenues to servitization are described in the literature, e.g. goods-dominant logic, service-dominant-logic or solution-logic and an array of related "derivative" approaches. However, the actual approach to conceptualising a transition process received almost no deeper elaboration. Therefore, my research focuses on a conceptualisation towards servitization that could be applied by practitioners of traditional product manufacturers. While considering strictly customer requirements they could decide specifically and individually upon implementation processes and priorities and take measures to encourage and facilitate their further servitization progress. The business potential of the suggested platform approach could result in a reproducible, consistent, sustainable and scalable service delivery processes.

Further, the servitization philosophy is inextricably linked to customer-requirements and the solving of customer problems. Thus, manufacturer executives ought to be aware that trust, interaction and communication should be established across all customer and manufacturer functions. Based on a resources alignment close to customer problems, they constitute the prerequisite of a strong, durable and profitable relationship. This could

enable a resilient customer collaboration that is necessary in order to be involved in problems and thus involved in the co-creation of solutions. Inevitably, service functions should understand their customers' business processes and acquire the necessary specific industry and sector knowledge. In particular, service executives should be aware of how customers implement burgeoning technologies like IoT, 3D printing and network technologies as it will strongly impact their capabilities and processes in assisting in the achievement of a high business process availability. Furthermore, service delivery functions need to assess their capabilities to continuously monitor customer processes remotely, collect the related data and analyse them in order to prevent or predict remedial interventions, as the related service processes differ remarkably from product-oriented service processes.

In addition, service executives at the initial stages leading to servitization could find that they do not possess and master the entire scope of capabilities and service skills. In order to avoid a premature limitation of their offered service scope they should revise alternatives for service sourcing and service co-operation. Lastly, the entire journey constitutes seemingly an endless process where the successful implementation of each stage might exceed by far the planned timeframes and established objectives. In spite of all the ambition in delivering on target, executives should be prepared to envisage the need for a fair amount of patience.

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