

SHAPING MARKETS FOR SERVITIZATION

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Abstract

We explore how product-service combinations emanating from a servitization strategy are qualified and how such qualification may create demand and, in turn, shape markets. We depart from much of the conventional thinking in the extant literature where there is a tendency to assume that demand and, consequently, markets for servitized offerings exist by default. To address this matter, we explore product-service qualification processes within a global organization providing industrial equipment. In order to do so, an in-depth exploratory empirical case study approach is adopted. Findings suggest that demand for servitized offerings, rather than occurring as a matter of course, is something that companies can actively create in the course of qualifying such new servitized offerings. It is this demand for such servitized offerings that then shapes a company's existing product markets into markets for product-service combinations. We aim to contribute by showing in detail how such qualification of servitized offerings unfolds, both internally and externally of an organization, and how it may be leveraged in order to create demand and thus shape markets for servitization.

Keywords: servitization, qualification, market-shaping

1. Introduction

Western industrial companies increasingly seek to enhance their product portfolios by offering services, a phenomenon that has been termed servitization (Vandermerwe & Rada, 1988). Although we have witnessed an ever-burgeoning literature on servitization, demand for servitized offerings is often an implicit presumption (Oliva & Kallenberg, 2003). However, in practice, there is no default demand for industrial services, as evidenced by the fact that companies implementing servitization may well fail (Neely, 2008). One reason for this is that the qualities of both products and services (Spring & Araujo, 2017) are elusive and fluid—and consequently difficult to grasp, adjust and communicate. Especially for companies with a strong product legacy are services difficult to qualify, that is, to define an offering in order to stabilize the different meanings attached to it (Callon & Muniesa, 2005).

In this paper, we present an in-depth case study to explore how such a product-centric company may qualify its servitized offerings in order to create demand for them (cf. Araujo et al., 2008). We show how qualities of servitized offerings are assembled in a manner that renders them desirable to customers and profitable to sell for the case company. In so doing, they create demand for servitized offerings and traditional product markets are shaped (cf. Kjellberg & Helgesson, 2006; Geiger & Finch, 2009; Doganova & Karnøe, 2015) into markets for servitized offerings.

We investigate the following research question: *How are servitized offerings qualified to create demand and shape markets?* We do so by drawing on Goffman's (1959) metaphor of the front- and backstage as this allows for a different understanding of qualification work within provider and customer spheres.

The paper is structured as follows: next, we provide a brief overview of the background literature to this study. This is followed by our research methodology, after which the findings from our case study are presented. We conclude with a brief discussion and some tentative conclusions.

2. Literature overview and theoretical framework

2.1 *The context of servitization*

The term servitization implies a change within industrial manufacturing organizations towards offering services and product-service combinations (Tuli et al., 2007; Kowalkowski et al., 2017). Servitization

is a widely recognized competitive strategy that focuses on addressing increasingly complex customer needs in order to protect the company from competitors (Luoto et al., 2017). However, for servitization to be successful, companies need to do more than just add services to the portfolio of their offerings. Increasingly more research begins to highlight the inherent complexity in implementing a servitization strategy and the managerial dilemmas with which organizations have to contend (Valtakoski, 2017; Fliess & Lexutt, in print; Raja et al., 2017; Zhang & Banerji, 2017). Yet, there still is a tendency to assume that a default demand for the resulting servitized offerings simply exists from customers (Berry et al., 2006; Oliva & Kallenberg, 2003; Davies et al., 2007; Baines et al., 2009). This, however, is problematic. Implementing servitization does not guarantee success and its unintended consequences, including an increased prospect of bankruptcy (Neely, 2008; Benedettini et al., 2015), indicate that such default demand for services may not exist. One reason for this may be that the frontstage, the customer's premises where services are delivered, is not always configured as often expected: customers themselves are not necessarily always aware of, or able to specify, their own needs (Normann, 2000; Hendry, 2002). This problem is further aggravated when customer needs increase in complexity, which is what a servitization contexts entails.

This practical task around defining customer needs is met with a theoretical challenge around defining services. Different characteristics are proposed in the literature (Lovelock & Gummesson, 2004; Araujo & Spring, 2006), and there is an agreement that defining services is particularly complex considering that they may also revolve around products (Gadrey, 2000), which themselves have changing biographies (Spring & Araujo, 2017). There is, however, consensus insofar as that services are understood to be different from products.

2.2 *Qualifying services and shaping markets for servitization*

Resulting from this is then a need to also sell services differently from products (Hill, 1977). Callon and Muniesa (2005) argue that, in order to sell a service, it needs to be “transformed into a thing” (p. 1233). This means that the service must have been sufficiently defined at one point in time in order to sell it (Lindberg & Nordin, 2008). Such qualification does not, however, occur independently, but requires effort and various investments from different market participants (Çalışkan & Callon, 2010). Consequently, the special nature of services should then also require specialized efforts in order to qualify them. We posit that the potential of servitization lies precisely in the required qualification efforts around the service and product components. As Callon and colleagues (2002) have noted, service provision is “a machine (sometimes a machination) designed to reveal what customers want” (p. 209). This then reveals that it may not only be services or products, but also customer needs, which need to be qualified. Therefore, in order to transform servitized offerings into *things*, both provider and customer concerns need to be accounted for. In order to go beyond expecting a default demand for services, further research is required in order to explain how companies may qualify their servitized offerings, both in front- and backstage processes, in order to create demand for them.

From the extant literature, we can glean that offerings, if they are to create demand, require persuasive value propositions (Storbacka, 2011; Storbacka & Pennanen, 2014). Consequently, markets may be shaped by the way in which such offerings are qualified (Azimont & Araujo, 2007; Finch & Geiger, 2011). How companies may come to qualify and create demand for servitized offerings in order to, ultimately, shape product markets into markets for servitized offerings, remains open. It appears that these efforts, with only few notable exceptions (Kindström et al., 2018; Geiger & Finch, 2009), have been largely neglected within the extant literature.

3. Research Methodology

Given the exploratory nature of the research, we deemed a single qualitative case study approach appropriate. To this end, a longitudinal study was undertaken over an extended period, during which researchers were immersed inside the case company, EngCo (a pseudonym). EngCo is a European firm, which provides plants and capital equipment to the global cement and minerals industries and now aspires to become a full-service provider.

3.1 Data collection

Multiple data collection methods were employed. In addition to researchers being based within the services division of EngCo headquarters, extensive rounds of interviews were conducted with employees across the various global operations. Respondents included vice presidents and general managers, as well as service and sales employees. To date, in excess of 40 interviews have been conducted with employees at both strategic and operational levels, across a number of different geographies. These interviews, each lasting between one and two hours, were recorded using digital recording devices and then transcribed verbatim, resulting in approximately 900 pages of text. In addition to interviews and field notes, secondary data sources, being internal and external documentation, were utilized. Internal documents included material available on the company intranet, PowerPoint presentations, service business plans, annual reports and minutes from management meetings. External documents included company's service marketing brochures, publicly available industry reports and company profiles on various databases. Regular feedback sessions were held over the research period, after the rounds of interviews, which provided the opportunity to verify and discuss our emerging perceptions.

3.2 Data analysis

Our understanding of EngCo was formed using an abductive approach (Dubois & Gadde, 2002), which entailed data analysis being undertaken over the duration of the study, by iteratively switching back and forth between data collection and theory. This allowed us to identify the notions of qualification and the frontstage/backstage dichotomy as appropriate concepts for this study and, in turn, employ them where the theoretically presumed default demand for servitization did not account for what we found in the field. In consequence, the analysis shaped our understanding of the research problem and the subsequent interviews and conversations with employees could then be directed towards new and surprising discoveries. All empirical material, including transcripts, field notes and photographs taken on site, were coded using NVivo software.

4. Findings

In the following, we present brief findings from the case study undertaken. EngCo is found to actively foster the qualification of its servitized offerings in order to create demand for them and, consequently, shape its markets towards a favorable direction. Qualifying of and creating demand for servitized offerings occurs between both within the provider organization (backstage) and with the customer (frontstage).

4.1 Backstage qualification

During the course of the empirical research, it became apparent that an important part to the qualification process was occurring within EngCo. Subsequently, interviewees were directly probed about this and it became clear during the analysis that qualification in this case includes actions that occur away from customer's sight, typically within EngCo, where there is a great degree of discretion and insight into the process of manipulating service qualities, which is further detailed below.

- *Creating an abstract customer:* While there is a pre-existing overall understanding of different customer organizations within EngCo, service qualification requires highly specific and detailed information. A heightened awareness of their heterogeneity has led EngCo to collect and arrange particularly detailed customer information using digital files such as databases, spreadsheets or online share points. In differentiating between which information is worthwhile to write down and which terms to choose in order to describe a customer need, the internal representation of the customer as collected in these files is reduced in complexity. This simplification then creates an abstract version of the customers. No longer is the whole organization of interest; rather, it is a few specific details for example on the equipment, the location and employees, that, when presented next to one another, allow to reconfigure the customer around a new service need. Such abstract customers are then easier to distinguish and compare, for example by clustering them into different customer segments or matrices

- *Creating a service business case:* By comparing across a number of abstract customers, employees may establish how a service idea might become a new offering that, despite their heterogeneity, solves a shared customer problem. In order to establish the relevance of a new service idea, many prerequisites must be fulfilled. For example, it is necessary to determine what type of EngCo's equipment this service is relevant for. Interestingly, this predominately concerns EngCo's already installed base; how such a service could be integrated with new equipment sales was not an immediate concern for our respondents. Instead, experts estimate what skills service engineers would require, the duration of delivering the service and, importantly, if such a service could achieve an economic benefit. Such information is gathered internally, by involving the required stakeholders across EngCo's locations. Across EngCo, the experts for the different parameters are identified and their knowledge is collected and assembled in a business case for the new service idea. Such a business case then connects the abstract customers with a new service idea and those capable of testing and, potentially, implementing it.
- *Creating a new servitized offering:* Only when there is an overall agreement that the service business case is potentially viable, which particularly depends on sales personnel "vowing to the assumptions" that the service is sellable and a good match with EngCo's equipment, is the service idea realized. The aim is to develop an offering with qualities that render it both economically viable and compatible with EngCo's equipment—which is primarily that which is already installed at customer's sites. In producing new calculations using spreadsheets, different qualities can be evaluated, adjusted and combined with each other. In so doing, different scenarios for service delivery are produced in order to examine different versions of the offering and to outline a more stabilized set of service qualities. Simultaneously, the emerging service qualities are constantly compared with and adjusted to the regarding abstract customers. Sales employees, taking on a function as internal customer representatives, are repeatedly involved to examine and approve of these qualities.
- *Rendering servitized offering tangible:* Once the new servitized offering exists, at least as a rough outline of qualities, this outline and proposed uses need to be rendered tangible. Here, respondents stressed the need to understand a servitized offering firstly in the backstage sphere, before it may meet a customer. In order to do so, a broad range of tools are used, for example calculating a contribution margin, using total cost of ownership calculation tools or different systems from external providers, such as a tool designed to manage asset lifecycles and maintenance. This is different from *creating a new servitized offering* in that estimates and complex ideas about the servitized offering must now be precisely expressed, calculated and phrased, for example, in a service contract. However, rendering the new service offering and its unique selling proposition (USP) tangible can be a difficult undertaking. Apart from contracts, services are made tangible mostly by using analytical devices such as Excel spreadsheets, archived construction plans for plants, project presentations or 3-D printed models in order to visualize the underlying economic and engineering qualities. Such devices then set the different assumptions of different agents in context and help to produce a qualified and quantifiable outcome.

4.2 Frontstage qualification

The backstage qualification processes detailed above are very much interwoven with qualification that occurs at the frontstage, that is they directly involve customers, their equipment and production sites. This frontstage is more difficult to maneuver, as customers rarely grant EngCo's sales and service employees the necessary or full access. Under such conditions, qualification at the frontstage is bound by rules that the customer can enforce, or as Goffman (1959) would describe as the presence of "barriers". This is further outlined below.

- *Enquiring into the customer:* Respondents unanimously stressed the importance of being 'close to customers', the result of a top management directive, itself stemming from the newly implemented strategy of becoming a full-service provider. Great value is placed on frequently visiting customer's sites, and EngCo mobilizes the long lifetimes of its equipment as a reason to stop by for repeated visits. Being on site presents opportunities for EngCo's employees to enquire into how EngCo's equipment

is performing, how it is used and maintained as well as to catch quick glances at the material processing chains in which it is involved. Often, they are restricted to the parts of customer's processes and equipment that customers permit them access to. Respondents explained that many customers tend to be unaware of the true causes for their "pains" and not interested in loosing time over what might seemingly be perceived as "small talk". Also, customers tend avoid disclosing too detailed information on their production processes for a fear that it could be reported back to their competitors, which are also clients of EngCo. In mining, detailed information on the output of mined ore such as silver or gold can affect share prices and also poses a security risk, given that mines are typically located in remote areas. Therefore, it can be difficult to identify and qualify any previously unknown factors during those proactive visits and conversations in situ.

- *Selling servitized offering*: In order to sell the servitized offering, it must be qualified in such a way that it fits with customers so well that they demand it and, importantly, are willing to pay for it. Many respondents stressed the need to communicate the USP of both the servitized offering itself and the rationale for buying the offerings from EngCo in general. However, this selling process is also subject to unintended consequences: customers can voice dissatisfaction with the offering, for example because they are unable to verify such qualities or there are other, unanticipated factors that render these qualities irrelevant. Respondents stressed that customers are only willing to pay for a servitized offering if its qualities are perfectly synchronized to their needs.
- *Delivering servitized offerings*: Even when it is sold, the delivery of the servitized offering is far from a formality. In some cases, the true state of equipment to be serviced is only detected during the service act, and can requires considerable extra effort to repair it. Even if the service can be delivered as promised, there may still appear other problems with the serviced or other equipment in the process chain. Given its reputation of being a premium brand, EngCo cannot afford to leave customers disappointed and it will often go out of its way to ensure customer satisfaction. This implicit guarantee originates from EngCo's project business, and over time, has become so established that customers now anticipate it from all of EngCo's offerings. Lastly, such service delivery provides then also another opportunity for EngCo's employees to detect new qualities on site, which may form a potential new service need.

4.3 *Oscillating between backstage and frontstage qualification*

In this section, we elaborate on the linkages between the qualification processes identified above. Importantly, it should be noted that the two processes are not to be seen as separate but as interrelated, where the illuminated backstage qualification occurs often in parallel in order to support frontstage qualification. Moreover, what is considered the frontstage for the provider is the backstage of the customer at the same time. Hence the boundaries between backstage and frontstage can be different, depending on whose perspective one is taking.

- *Establishing interfaces*: The initiative to become a full-service provider has resulted, amongst others, in a number of interfaces to customers. The services R&D department, which connects travelling sales and service personnel with relevant service developing back-office employees. While services were already developed before the R&D department existed, this occurred in a haphazard and informal way. Today, official positions such as 'Business Developer' or 'R&D Manager' try to centralize previously dispersed tasks in visible designated points of contact. In this way has the R&D department established itself as a reliable interface between EngCo and its customers. In addition, new functions, such as that of 'global product line manager' (GPLM) are established in order to create specialists that combine broad knowledge across a whole product line with a global market perspective. Sending such product experts out frontstage to customers then further allows for scouting for new opportunities.
- *Service co-creation*: Building on the customer input, a solution needs to be found, which does not often occur ad hoc on a customer's site. Often, customer needs are complex and it is difficult to invent and sell a new service on the spot, in particular given the sometimes sparse or incorrect information provided by customers. Instead, new information on customer needs is, via established interfaces,

transported inside the company to create a better understanding by combining it with previously collected customer details. Any resulting service ideas can then oscillate between customers and EngCo in a joint effort to qualify a viable solution. Here, customers contribute to the process of determining their needs by revealing their general interest in the offering. If the offering appears promising, customers may, in conversation on site, provide more information on and insights into their equipment, processes and requirements. With some select customers, EngCo may even install new parts and provide innovative services for on-site testing purposes, and later utilize their feedback for further improvement of the offering.

- *Cross-unit cooperation:* Cross-unit cooperation is crucial in order to transport knowledge about a customer problem through the established interfaces from the frontstage onto the backstage. Respondents stressed both the difficulty in staying abreast of the requirements of all the different regions, especially with the many ongoing changes inside the company, and the need to, despite those changes, continue to share information. Interestingly, most communication flows within EngCo’s deeply rooted relationship networks, which employees have developed over time with their long tenures at EngCo and with job rotations in different global localities. EngCo actively seeks to foster this internal cooperation, for example by organizing informal gatherings such as breakfast meetings, and enabling also its back-office employees to fly and visit other local offices.

Figure 1 is an illustration of the above detailed findings as to the qualification of servitized offerings between the backstage and frontstage processes, and the oscillation between two.

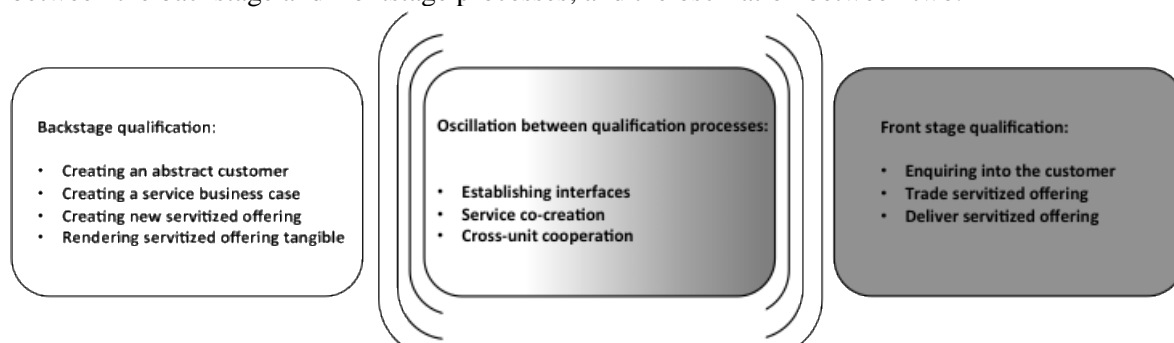


Figure 1: Qualification of servitized offerings

5. Discussion and tentative conclusions

The purpose of this study was to provide a better understanding of how demand for servitized offerings arises and the role that servitizing companies may play in creating such demand and shaping their existing product markets into markets for servitized offerings. The empirical background to our investigation was a global manufacturing and projects company that now aspires to become a full-service provider. The case study we reported above reveals that demand for servitized offerings is not an a priori condition. Instead, demand is created by assembling the qualities of servitized offerings in a manner that renders them desirable to customers and profitable to sell for the case company. Furthermore, our case sheds light on the efforts necessary in order to render a servitized offering a thing (Callon & Muniesa, 2005) and to simultaneously establish this thingness in such a way that adjusts the qualities of the servitized offering to the qualities of the customer *while these customer qualities are being discovered*. In so doing, traditional product markets can be shaped into markets for servitized offerings (cf. Kjellberg & Helgesson, 2006; Geiger & Finch, 2009; Doganova & Karnøe, 2015).

Here, we find Goffman’s (1959) metaphor of front- and backstage particularly useful: On the backstage, customer qualities (that is, including their equipment, locale and hierarchy structures) are captured, aggregated and mobilized in order to determine and match service qualities around them away from the customer’s gaze. Similar to Goffman’s logic, we find that backstage qualification allows actors the discretion to review and adapt qualities and determine how they come to form a servitized offering. The frontstage, however, takes place at the many different sites of EngCo’s customers. Actors therefore, and differently to what Goffman describes, have restricted insight into and little control over all of this frontstage.

The extant literature has identified that offerings with persuasive value propositions create demand (Storbacka, 2011; Storbacka & Pennanen, 2014), which in turn shapes markets (Azimont & Araujo, 2007; Finch & Geiger, 2011). However, only little attention has been paid to the fact that the customer insights required to qualify such offerings may be difficult to come by, as customers may be unable or unwilling to reveal them. Our case further demonstrates how customers are confronted with different versions of service qualities, so that they may become aware of what qualities they actually deem relevant and are prompted to reveal these preferences. It is such reactions on the frontstage that provide direction to the backstage qualification process. Internally, sales agents may speak for the customer in order to provide further guidance to the qualification process.

Importantly, however, front- and backstage are connected. In our case, demand for servitized offerings is created by oscillating between these two stages. Customer insights are transported backstage and, in turn, increasingly developed offerings are transported to the frontstage. Service provision in our case does resemble a machine that reveals what customers want (Callon et al., 2002). The ‘description of the offering’ that Storbacka and Pennanen (2014) find essential to create demand, is, as we find, not static or an a priori condition, but is continuously shaped and reshaped even after sales, and continues to change until the offering has been delivered in full.

We therefore tentatively conclude that companies may shape their existing product-dominated market towards those in which services and servitized offerings are emphasised. The qualification efforts and resultant demand creation illustrated in our case study result from a deliberate company desire to become a full-service provider. Moreover, our case illustrates how markets may be shaped by re-defining how a company’s USP is utilized, engineering know-how in our case, in order to preserve the ability to deliver something that is of value for customers. The case presented thus attempts to build upon other research (Geiger & Finch, 2009; Harrison & Kjellberg, 2016; Kindström et al., 2018) in order to explain how service supplier’s qualification process can be understood as active market shaping for their servitized offerings.

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