ABSTRACT
Servitization is the process by which manufacturers add services to their product offerings and even replace products with services. The capabilities necessary to develop and deliver advanced services as part of servitization are often discussed in the literature from the manufacturer’s perspective, e.g., having a service-focused culture or the ability to sell solutions. Recent research has acknowledged the importance of customers and, to a lesser extent, other actors (e.g., intermediaries) in bringing about successful servitization, particularly for use-oriented and results-oriented advanced services. The objective of this study is to identify the capabilities required to successfully develop advanced services as part of servitization by considering the perspective of manufacturers, intermediaries and customers.

This study involved interviews with 33 managers in 28 large UK-based companies from these three groups, about servitization capabilities. The findings suggest that there are eight broad capabilities that are important for advanced services: (1) personnel with expertise and deep technical product knowledge, (2) methodologies for improving operational processes, helping to manage risk and reduce costs, (3) the evolution from being a product-focused manufacturer to embracing a services culture, (4) developing trusting relationships with other actors in the network to support the delivery of advanced services, (5) new innovation activities focused on financing contracts (e.g., ‘gain share’) and technology implementation (e.g., Web-based applications), (6) customer intimacy through understanding their business challenges in order to develop suitable solutions, (7) extensive infrastructure (e.g., personnel, service centres) to deliver a local service, and (8) the ability to tailor service offerings to each customer’s requirements and deliver these responsive to changing needs.

The capabilities required to develop and deliver advanced services align to a need to enhance the operational performance of supplied products throughout their lifecycles and as such require greater investment than the capabilities for base and intermediate services.

KEY WORDS: Advanced Service Actors, Interviews, Capabilities

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KEY WORDS: Advanced Service Actors, Interviews, Capabilities
Servitization has been heralded as a means for manufacturers facing increasing commoditization of their product offer to achieve competitive advantage and create improved customer value (Baines et al. 2009; Vandermerwe and Rada 1988). Servitization is increasingly being recognized as a network activity, particularly for the delivery of advanced services, also referred to as use or results-oriented product-service systems (PSUs) (Tukker 2004). This involves value adding processes being delivered by actors beyond the focal manufacturer (Kwokwulo, Kinclastion and Wael 2011). Thus, in order to successfully servitize, manufacturers must focus on evolving capabilities that encompass the mobilisation of network actors.

Servitization capabilities are often discussed from the focal manufacturer’s perspective (e.g., Ulaga and Reinartz 2011). The general presumption is that manufacturers assume responsibility for activities previously performed by customers (Mathieu 2001). Spring and Araujo 2013). A significant problem with such an approach is that it is often inadequate to address servitization (Paola et al. 2012). There is, however, limited empirical research addressing how manufacturers work with partners in order to provide services (Raddats et al. 2013). Hence, this study aims to investigate the manufacturer, intermediary and customer perspectives on the capabilities necessary for successful servitization.

2 THEORETICAL FRAMEWORK

2.1 Advanced Services

A number of commentators have developed service typologies. Mathieu (2001) identified services supporting suppliers’ products and services supporting client activities (SSC). Oliva and Kalphen (2003) developed a hierarchy from basic product-related services (e.g., product installation) to advanced services (e.g., process oriented consulting). Baines (2013) argues for a ‘mixed approach’ to capability development in servitization (development oriented to suppliers/partners or take a ‘mixed’ approach (co-developing capabilities with customers/partners) (Paola et al. 2012). For advanced services, it is more likely that a ‘mixed’ approach to capability development is required, since advanced services generally result in a customer being better able to perform a business process (Baines 2013).

2.2 Capabilities For Advanced Services

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3 METHODOLOGY

A qualitative approach was adopted for this study due to a general paucity of understanding of the nature of the problem and an associated requirement for exploratory research to develop understanding of the underlying causes of human action (Miles and Huberman, 1994). Thirty-three semi-structured interviews were conducted with senior executives across 28 organisations that had experienced a servitization process either as prime manufacturer (19), customer (11) or as an intermediary (3). In the first instance Managing Directors (MDs) of the manufacturers were contacted and they were either interviewed or provided guidance on who to interview within the organization (Directors of Sales, Operations, Strategy, Service Development or similar). At the customer organisations the MD or Operations/Supply Chain Director were interviewed. All the firms were UK based, Business-to-business (B2B) organisations purposefully sampled across a range of sectors in order to build a representative sample of high-profile industrialists capable of delivering an informed opinion on the capabilities driving servitization and particularly advanced services delivered by a network of actors across multiple contexts. The manufacturers targeted were organisations with a clear manufacturing heritage and track record of technological innovation that also now offer “advanced services”. Independent semi-structured interview guides were developed for the interviews, including questions addressing definitions of servitization in the context of the respondents firm, organisational change necessary to adopt servitization, and enabling/inhibiting factors for the exploitation of servitization. Of the 28 organisations a sub-set of 10 were selected in dyadic relationships with each (manufacturer-customer) in order to explore capabilities from dual perspectives. Respondents were encouraged to talk in detail about their organizational servitization experiences in context, resulting in ‘narratives’ and ‘stories’ (Gabriel and Griffths, 2004). The resulting transcripts were some checked by respondents and then thematically coded by the research team. A template analysis approach was adopted (King 2004); issue a priori capability codes were developed from literature (Dubois and Gealle, 2003) and applied as an initial template, which was then developed and added to during the research as recommended by King (2004). Parallel data coding was carried out; with some segments of text classified within more than one code (King 2004). The template, developed from analysis of the contextual narratives of servitization experience, enabling the researchers to code emerging capability themes via detailed reading and re-reading of the text (Cubitt and Miller 1999; King 1998).

4 RESULTS

The findings suggest that there are eight broad capabilities that are important for servitization, which are discussed below:

Technical expertise

Manufacturers’ service engineers will generally have strong technical knowledge of their own products. Inter-company servitization and joint ventures often introduce a differentiator, enabling a manufacturer to offer more exclusive services than service provider firms or other OEMs without these links. Manufacturers and Intermediaries should also have good technical knowledge of products from other OEMs that they supply.

“We provide the engineering capability, we have a test facility, so we do MRO ... but what we don’t have is a product” (Intermediary, Aerospace sector).

Clearly for manufacturers, this knowledge is likely to be less exclusive than for their own products.

Customer-focused methodologies

Our data supports the idea that offering advanced services can require manufacturers to develop service methodologies that align to customers’ processes. Technical expertise concerning products

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must therefore be coupled with knowledge of how customers perform product-related activities, e.g., operations and maintenance.

“We are working with them in a long-term relationship to help optimize how we run the laboratories from a process point of view.” (Customer, Health sector).

Ultimately, manufacturers must be able to offer customers an improvement on what they can do themselves or what competitors can offer, in terms of cost, service quality and innovation.

An implication of providing customer processes is that the contractual relationship between the manufacturer and customer might change, with ‘gain share’ or risk/reward contracts more prevalent. Manufacturers need to be able to assess and manage risk for these offerings and price them in such a way that they are attractive to customers, but are still profitable. A key element here is that manufacturers and customers need to have an agreed set of operational data on product performance on which such services can be based.

Developing a services culture

In order to deliver advanced services there is a need for manufacturers to shift to a more service orientated organizational culture:

“So if you were to take a design and manufacturing company and go into the service sector there’s undoubtedly got to be a large cultural change.” (Manufacturer, Defence sector).

Developing a service culture is often quite difficult for manufacturers who are used to designing and building complex high-value products, e.g., talented engineers might view their future careers in product engineering rather than services. Thus, senior managers need to carefully re-position the new company focus in the minds of all stakeholders, e.g., employees, customers, shareholders and identify potential blockages in terms of processes and rewards structures that might inhibit the new culture from flourishing.

Thus, designing and implementing suitable service processes becomes not just a technical issue, but one requiring the recruitment of qualified engineers with the willingness and aptitude to work in a more service-oriented, customer-focused environment.

Network relationships

Offering advanced services fundamentally requires very strong and trusting customer relationships:

“Having the relationship is pretty much key to our success” (Intermediary, Construction equipment).

Genuine partnerships are required to enable manufacturers to understand those elements of the customers’ businesses for which improvements can be made, and customers must appreciate that this may evolve through an appreciation of each other’s values, rather than simply an appreciation of a track record.

Relationships with other actors in the network are also better, with partnerships between OEMs allowing the scope of advanced services to be extended, if one acts as the prime contractor. If OEMs are to work together then trusting relationships are critical, with both parties needing a strong partnering ethos, with companies often cannot develop and deliver advanced services alone.

Relationships between a service provider (without their own product portfolio) and an OEM can also be important as the parties might be able to work together under two OEMs, for whom competitive issues might dominate the relationship.

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Service innovation

Service innovation will often start with new customer requirements, perhaps to reduce costs or to perform an activity in a better way:

“Our technology people meet with them regularly ... we also discuss innovations with them on a regular basis” (Customer, Government sector).

Manufacturers are likely to need to develop new methodologies to enable customers to perform their processes more innovatively. For example, Web-based technology including telemetry can enable a manufacturer to better manage the installed product base and react quickly in the event of outages or faults.

Customer intimacy

Having an intimate understanding of the customer’s business challenges is a key requirement:

“They understood what we were on about and how we were developing” (Customer, Government sector).

To achieve this, the manufacturer’s account managers need to be able to understand what these problems and requirements are in order to deliver effective solutions.

Services infrastructure

Having an extensive service infrastructure local to the customer can also be a differentiator, be it offices, engineers or even holdings of spare parts:

“(We) see it as being important to participate more locally, closer to our customers and we’re benefiting from that.” (Manufacturer, Power sector).

For the largest customers, a manufacturer might locate its service engineers in the customer’s site to provide fast resolution to problems encountered.

A manufacturer might also develop a large-scale service capability, perhaps off-shored to dedicated service centres, to achieve a critical mass for delivering that service. Off-shoring can help to deliver efficiencies and cost savings which might not be possible by the customer alone. These service centres might undertake a range of back-office functions, such as technical support and software design.

Tailored and consistent service offerings

Manufacturers need to provide consistent and timely service offerings. Providing a degree of flexibility in the service offerings can also be seen as an important requirement for manufacturers:

“It’s ability to respond, it’s the ability of them to fit whatever needs to be fixed” (Customer, Transportation sector).

Whilst complete flexibility is unlikely to be possible, having a degree of modularity in each service offering (e.g., differing response times) will allow customers to select the one most suitable for them and allow variation as their requirements change.

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5 DISCUSSION

5.1 Implications For Theory

The study’s aim was to investigate the capabilities demonstrated by firms developing advanced services. Initial findings show that capabilities for developing and delivering advanced services should enable customers to better perform their business processes (Baines et al., 2013), the capabilities that underpin them are necessarily relational in character and may require deeper investment in people, technology and infrastructure than base and intermediate services. By offering advanced services firms also need to develop new approaches to service specification, delivery and payment (Baines and Lightfoot, 2013). The study highlights differences in capabilities between manufacturers and intermediaries, e.g., manufacturers have deep product knowledge of their own products, whilst intermediaries are able to build infrastructure close to the customer, which a manufacturer might not be willing or able to do. Additionally, the study identifies the same set of eight capabilities as being important to customers, providing verification of their importance.

Template analysis has facilitated the identification of overlapping and related capabilities for the provision of advanced services. Future research should investigate how separate actors collaborate to develop network capabilities (Raddats et al., 2013) that are more effective than what could be achieved independently. This should involve further investigation of how relational activities and balanced innovative capabilities can be developed to deliver successful advanced services.

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