ASSessing the 'use Value' of servitized offerings: the customer perspective

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Abstract
In recent times the attention afforded to servitization has been a growing phenomenon. The servitization debate has witnessed calls to examine how customers perceive and assess the use value of product-service offerings. To date, the literature in the product-service domain gives limited consideration to the customer perspective. In particular, there exists a need for examining customer usage processes to better understand how value is derived and assessed. Moreover, there exists an important gap in explaining how and why the assessment of ‘use value’ of servitized offerings by customers is significant. Much of this has been a result of the newly proposed service-dominant logic by Vargo and Lusch (2004). In this paper, we argue for the need to develop measures of customer usage processes. In order to bridge the current gap, this paper proposes the use of the repertory grid technique as a means of identifying such measures. Further steps for future research are also outlined.

Keywords: use value; servitization; product-service, service dominant-logic; customer perspective
1. **INTRODUCTION**

Manufacturing firms are increasingly struggling to compete in the current economic climate. There are calls for them to move downstream into the provision of associated services to maintain competitiveness (Wise and Baumgartner, 1999; Oliva and Kallenberg, 2003; Vandermerwe and Rada, 1988). Such moves towards integrating products and services are commonly referred to in the literature by terms such as ‘product-service systems’, ‘integrated solutions’, ‘high value manufacturing’ or ‘servitization’ (Baines et al., 2007; Davies et al., 2006; Vandermerwe and Rada, 1988). For many leading manufacturers and providers of integrated products and services, this is seen as an opportunity to provide a ‘one stop solution’.

In this conceptual paper we suggest the need to explore the use value of servitized offerings. In this respect, we propose the need for in-depth exploratory research studies that shed light on customer usage processes of servitized offerings. In particular, we propose the use of the repertory grid technique (Fransella, Bell and Bannister, 2004; Goffin, 2002; Jankowicz, 2004) to unearth how customers’ of servitized offerings perceive and assess the use value through consumption. This approach will be useful in developing measures that could then be applied to a larger scale study that would allow testing for generalisability. Such an approach would begin to fill the vacuum that exists in compiling useful measures to assess servitized offerings from a customer perspective.

The rest of this paper is structured as follows: in the next section the extant literature is examined in relation to the servitization debate and associated calls for UK manufacturing to shift towards high value manufacturing. Specific attention is given to
understanding the customer perspective. This is followed by an examination of the concept of value and how it is defined. The resultant implications for the measurement of value are discussed and the need to assess the use value of servitized offerings is outlined. In this regard, the use of the repertory grid is described in establishing measures for the assessment of use value. Lastly, some preliminary findings are presented from an on-going study.

2. THE EMERGENCE OF SERVITIZATION

The last two decades have witnessed a growing interest in the servitization of manufacturing-based organisations. Manufacturing organisations are notable for calls for them to develop service streams to complement traditional product offerings (Wise and Baumgartner, 1999; Oliva and Kallenberg, 2003). As such, there is a trend towards offering customer-focused combinations (or ‘bundles’) of goods, services, support, self-service and knowledge (Vandermerwe and Rada, 1998).

Services provided by manufacturing organisations have typically been in the form of after-sales, in which service provision is focused on cost leadership and the smooth running of products (Gebauer, 2008). Services such as installation, maintenance and repair have generally been viewed as complementary to the primary business focus of selling products (Bowen, Siehl and Schneider, 1989). Hence, services have conventionally been considered as necessary add-ons to the core product portfolio. The more contemporary view is that many manufacturing companies can benefit from a move towards a more extensive provision of services to remain competitive in the current marketplace (Foote, Galbraith, Hope and Miller, 2001; Oliva and Kallenberg, 2003; Gebauer and Friedli, 2005). Wise and Baumgartner (1999), for example, argue that
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particularly companies in mature industries should be looking for service opportunities to achieve new growth and profitability.

In recognition of the wider changes in the competitive environment the UK government is encouraging the introduction of ‘High Value Manufacturing’ (EPSRC, 2008; TSB, 2008). This comes on the back of the recognition that historically the industry response to commercial pressures has mainly focused on improving production processes and enhancing efficiency. High value manufacturing is advocated as a possible alternative for manufacturing firms to maintain a long-term and sustainable competitive advantage.

High value manufacturing then covers the process from market assessment and product design to manufacture, support and service delivery. Such an approach is high on the UK government’s agenda (BERR, 2008; EPSRC, 2008). Consequently it figures large on the policy agenda. The concept of high value manufacturing builds on an established literature encouraging manufacturing companies to move beyond product delivery to offer through-life service provision (e.g. Slywotzky and Morrison, 1997; Wise and Baumgartner, 1999; Oliva and Kallenberg, 2003). Companies are advised to develop business strategies in favour of providing ‘high value’ solutions through the integration of products and services (Foote et al., 2001). Of central importance is the required change in emphasis from selling generic products towards developing the capability to address customers’ unique requirements (Miller et al., 2002; Davies, 2004).

Baines, Lightfoot, Benedettini and Kay (2009) argue that such a strategy may not be relevant by default to all manufacturing organisations. The paradox for many manufacturers is that while servitization is perceived as providing greater marketplace
security, it can also lead to greater risk of failure (Brax, 2005; Gebauer, Fleisch and Friedli, 2005; Reinartz and Ulaga, 2008). Servitized industrial companies appear to divide into two distinct groups: those that thrive under a servitization model with service margins accounting for the majority of sales, and those who are struggling to break even because they are unable to convince customers to pay for their services (Reinartz and Ulaga, 2008).

3. THE CUSTOMER PERSPECTIVE WITHIN THE SERVITIZATION DEBATE

A prerequisite for organisations embarking on the journey to become service (or solution) providers is that the creation of value must be understood through the eyes of the customer (Brady et al., 2005). Adopting such an outlook is in contrast with the dominant product-logic view of value creation, which tends to be product-focused in its orientation (Slywotsky and Morrison 1998). It is argued that customers are ever more demanding in a increasingly competitive business environment. Moreover, it is claimed that customers are focusing on their core competencies and as a consequence searching for integrated offers of products and services (cf. Cova and Salle, 2007).

The value proposition of organisations integrating products and services does not necessarily entail the ownership of the associated offering, but rather an agreement that delivers ‘value-in-use’ (Baines, Lightfoot, Evans et al., 2007). Gronroos (2007) suggests that whereas firms have focused upon goods, underpinned by a belief that value for customers resides within the physical product exchanged, increasingly firms are viewing value creation from a ‘use value’ as opposed to a ‘exchange value’ perspective.
These calls for a change in focus - from a goods-dominant logic to a service-dominant logic - have gained prominence of late, especially within the marketing literature (Vargo and Lusch, 2004; 2008; Lovelock and Gummesson, 2004). In particular, Vargo and Lusch’s (2004) statement that value can no longer be defined by the service provider, but needs to be evaluated through the service experience, that is, what is perceived at the point of consumption. Within the service-dominant logic framework the customer acts as co-creator of value for the business. The new mode of thinking is argued to be primarily concerned with supporting client processes and business strategies.

4. DEFINING ‘USE VALUE’

The concept and meaning of value itself is discussed in a broad range of literature streams (Ramirez, 1999). Definitions of value have a tendency to encompass only what a firm provides, rather than focusing on the customer experience. Thus, the customer assesses the value on the basis of what is given and what is received (cf. Zeithaml et al., 1988). The traditionally held view of value has consequently focused on the embedded dimension that predicates ‘the presence of product/service attributes, and performances against those attributes, for which the customer is prepared to pay due to their perceived potential’ (Woodruff, 1997; Vargo and Lusch, 2004). In contrast, the use value focuses on how the customer’s functional outcome is served through the consumption of the servitized offering. A useful definition then of ‘use value’ is defined by customers, based on their perception of the usefulness of the product-service offering (Bowman and Ambrosini, 2000). In this paper, we prefer the ‘use value’ term that is a kin to ‘value-in-use’. The literature is replete with both terms being used, and we use them interchangeably.
Of late, the use value perspective has gained greater prominence and importance through the work of Vargo and Lusch (2004; 2008). Some argue that this approach is not novel (Ambler (2005), lacks conceptual clarity and precision (Stauss, 2005), and is surrounded by a lot of hype (Lindberg and Nordin, 2009). Moreover, the need to assess the use value that customers attribute to products and services is nothing new (Bowman and Ambrosini, 2000). Moreover, it is arguable whether a paradigm shift has occurred as suggested in the marketing literature (Moeller, 2008). Such claims are reminiscent of other trends towards ‘servitization’, ‘integrated solutions’, ‘service-led projects’ which are contested (Leiringer, Green and Raja, 2009).

5. Measuring Customer Perceived Value

The legacy of the characterisation of services by Sasser, Olsen and Wychoff (1978) as being intangible, perishable, difficult to standardise and without distinction between production and consumption still looms large. These are commonly referred to as the intangibility, heterogeneity, inseparability and perishability (IHIP) characteristics (Zeithaml, Parasuraman and Berry, 1985), and have been described as ‘myths’ that fail to distinguish manufacturing from services that have outlived their usefulness (Vargo and Lush, 2004; Edvardsson, Gustafsson and Roos, 2005; Aurajo and Spring, 2006; Correa, Ellram, Scavarda and Cooper 2007). Existing measures of value delivery to customers is evaluated against criteria such as ‘to cost’, ‘to specification’ and ‘delivery on time’ for traditional product operations (Baines et al., 2009). The criteria that service operations consider important in evaluating an offering to customers and its success are considered differently (Gebauer, 2005) and thus cannot only be measured by traditional product-
Based measures. Expectations of service, co-location and speed of response have been suggested as performance measures within servitized operations (Lewis 2004).

Within a goods-dominant logic, the assessment of quality has over time become far more straightforward within engineering management (Ulaga, 2003). The quality of goods is generally assessed by comparing the customer evaluation of goods attributes with the expectations of those goods (Zeithaml, 1988; Kirmani and Rao, 2000). In contrast, the quality of services has proved far more complex in its assessment. For pure service delivery, the SERVQUAL measure in assessing customer expectations still dominates (Zeithaml, Berry & Parasuraman, 1996). It is however highly questionable whether this measure can be useful when it does not account for the outcomes of a service encounter (Buttle, 1996). Nevertheless, the SERVQUAL measure remains of use in understanding company-controlled processes. Moreover, it remains an innovative measure in that it acknowledges that service quality is perceptual and occurs in interaction between the supplier and customer (Parasuraman, Zeithaml & Berry, 1988).

6. MOVING TOWARDS MEASURING USE VALUE OF SERVITIZED OFFERINGS

In the customer solutions literature, Tuli, Kohli and Bharadwaj (2007) acknowledge the gap that exists between perceptions of quality between customers and suppliers. Brady et al. (2005b) further assert that the core capability for the provision of integrated solutions is systems integration whereby systems integration is defined as the capability to design and integrate disconnected sub-systems into a functioning system specific to the needs of the customer. How this is achieved given the difference in perceptions amongst suppliers and customers is highly relevant, especially where a product-centric perspective is
adopted. Of note is the lack of attention given to the \textit{relational processes} in the delivery of solutions and on-going support (Tuli et al., 2007). These shortcomings are noteworthy for their lack of consideration of customer usage of the offering after delivery. In part, this can be attributed to the lack of measurement tools for assessing servitized offerings in use.

The majority of studies advocate a shift towards delivering value to the customer but do not propose how such \textit{use value} is to be assessed. The current position remains rooted in the ‘old’ product mode of thinking. Within this ‘new focus’, intangible resources and service provision are considered to play centre stage in defining value and the basis on which economic exchange occurs (Vargo and Lusch, 2004). It follows that there is a need to depart from this traditional understanding of value and point towards the need to focus on customer experience through usage.

From the discussion thus far, it is evident that the current extant literature has given little attention to how customers assess the \textit{use value} of the services. Existing measures, such as SERVQUAL, are limited in their application to a servitized context. They have a tendency to concentrate on the tangible attributes and embedded value dimensions of offerings. Such measures do not account for the value attributed to an offering in its consumption. Notably, neither do they explain how value is co-created and co-produced with the customer.

Proponents of the need to assess use value however do not go beyond highlighting the issues (Vargo and Lusch, 2004; 2008). They fail on two accounts: 1) in formulating clear definitions of the term and 2) to provide guidance with regards to the methods to be used
in assessing customer perceived value within a service-dominant logic. Furthermore, it presumed that a service-dominant logic is preeminent over a product-dominant one. In the case of servitization, it is still the likely case that a product-logic is likely to figure large, if not prevail over a service-logic. In many ways, the service aspect exists only to support the core product business. For those organisations adopting a PSS strategy, the integration of both product and service is seen as essential, rather than a shift to a new service paradigm. Moreover, the service-dominant logic assumes a shift from one steady state to another. In reality, such changes are never straightforward or uncontested.

The current rhetorical appeal of the service-dominant logic is clearly evident from the citations it is receiving. This does not however negate the need for more substantive studies that actually identify measures for assessing use value. The propagation for a reorientation towards a new service dominant-logic is by no means new. It is reminiscent of calls towards the ‘enterprise culture’ in which the customer-orientation is the strategic focus for businesses and managers, coupled with greater willingness to take risks and responsibility (du Gay and Salaman, 1998; Fournier, 1998). Such a focus has been labelled as the ‘cult of the customer’ (du Gay and Salaman, 1998) and is strikingly evident in the service-dominant logic debate. Unsurprisingly then, the persuasiveness on the argument for servitization is underlined by the alluring need to ‘add value’ for the customer. Exactly what this is entails is unclear.

In essence, we argue for a general need to move away from customer perceived quality measures that adopt an embedded-value assumption of an offering. It is proposed that a turn is needed, in that, the customer usage and experience of the servitized offering needs to be measured in its use. In turn, this will allow for the development of more accurate
measures of *use value*. Moreover, any new set of measures will need to take into account the co-creation and co-production of value.

7. **Proposed Research**

In light of the above, an exploratory case study is adopted to investigate how customers’ assess servitized offerings across different industrial sectors within a business-to-business context.

A broad ‘grounded theory’ approach is adopted, characterised by an iterative and ongoing process of engagement with both literature and empirical data (cf. Glaser and Strauss, 1967; Orton, 1997; Suddaby, 2006). Access has been secured across five different customer organisations of an industrial supplier of servitized offerings. The data collection took place across the UK and Ireland. Along the lines advocated by Boyer and Swink (2008), multiple research approaches were adopted to develop a holistic understanding. The data collection process comprised interviews, observations and focus group meetings with the supplier organisation; and a combination of semi-structured and repertory grid interviews with the customers’.

For the purposes of this paper, our attention now turns to detailing why the repertory grid technique used with customers’ is useful for developing measures to assess *use value*. Further, some preliminary results to emerge from the analysis are also detailed.

**Repertory Grid Technique**

The repertory grid technique (Fransella et al., 2004; Goffin, 2002; Jankowicz, 2004) is used with the customer organisations. This technique enables researchers to delve deeper
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into understanding how individuals construe use value of products and services that is important to them. Importantly, it is a useful technique to help respondents to articulate the more tacit dimension of what is important to them. The theory and its technique allow for an exploration of an individual’s personal construction system.

The process that we adopt in conducting the repertory grid interviews is guided closely by that of Goffin et al. (2006). Each respondent is asked to name 6 to 10 suppliers of industrial maintenance products and services they used. Included in the list is also the supplier organisation. Each of the names elicited by the interviewer (referred to here on as ‘elements’ as is used in repertory grid terminology) of was randomly numbered on a set of cards and recorded in the grid.

The next stage involves using Kelly’s (1955, 1963) method of presenting a triad of cards and asking: ‘Can you think of any ways in which two of these suppliers are similar to each other and different from the third in terms of the outcomes you get?’ The triad is thus used as a means of generating constructs that are important to the respondent by comparing and contrasting their experiences. Each construct elicited consists of two poles: the ‘construct pole’ and a ‘counter pole’. The counter pole is elicited by asking the respondent to name the opposite, in their words, of the construct pole. The interviewer then explores with the respondent the meaning behind the construct elicited. This is followed by an evaluation of all the elements (suppliers) using a 5-point Likert scale (Fransella and Bannister, 1977).
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The exercise is continued by presenting a different triad to elicit the second construct, whilst asking the same question. The process of presenting different combination of triads is repeated until no further meaningful constructs emerge. The technique is particularly useful in uncovering dimensions the respondent is unaware of and those tacit dimensions that are hardest to articulate in a concise manner. The complexity that is apparent in these organisations is identified through the elicitation of key constructs using the repertory grid interviews. The technique is useful for identifying that which is important to different stakeholders, specifically the users of product-service offering and decision-makers in their assessment.

8. DISCUSSION AND CONCLUSION

In order to bridge the current gap that exists in the literature, we aim to develop measures that will guide future research on the use value of servitized offerings. The adoption of the repertory grid technique is a useful means of capturing those measures that are important to customers. Moreover, it is a technique that is grounded in the experiences of individuals. Such a technique is highly appropriate for an exploratory study such as this.

Table 1 details some of the emerging measures from preliminary analysis of the data. Such measures begin to illustrate that which is important to users’ of servitized offerings.

Table 1: Emergent measures of assessing use value from repertory grids

<table>
<thead>
<tr>
<th>Measure</th>
<th>Definitions (i.e. what it includes)</th>
</tr>
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<tbody>
<tr>
<td>Responsiveness</td>
<td>How quick person reacts; response times for repairs and maintenance; helping business move faster; consistency of response;</td>
</tr>
<tr>
<td>Specialist</td>
<td>Technical knowledge; expert knowledge; having specialist and generic skills; specialist contractor; knowledge of product; dealing and tackling specific problems;</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>knowledge</th>
<th>knowledge of systems and processes; know-how; bringing outsider knowledge to the company; knowledge from specialised supplier; technical assistance/support;</th>
</tr>
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<tbody>
<tr>
<td>Understanding customer business</td>
<td>Understanding how they work as a business; having commercial focus on customer business; knowing what they need; having a focus on the end-user need; understanding customer problems; having local knowledge of customer networks (suppliers); knowing the people; entwined/integrated with customer;</td>
</tr>
<tr>
<td>Relational dynamic</td>
<td>Direct business relationship; duration of relationship; obliging; quality of relationship; relational skills; trust; working in partnership; quality of relationship with supplier; good client management; relational history; trust that payment will be made;</td>
</tr>
<tr>
<td>Range of product and/or service offering</td>
<td>Product and service offering; customised product/service; one-offs and specifically tailored products/services; range of repairs (wider variety); options; routine maintenance activities; calling-in as and when required; developing preventative maintenance offerings; spare parts and resources provision; managing obsolescence issues; specialist equipment service provider; type of support (building and commissioning);</td>
</tr>
</tbody>
</table>

This paper makes two contributions in a number of ways. Firstly, the paper provides directions toward the development of measures that correctly assess the use value of servitized offerings. Secondly, the repertory grid technique is a potential technique that can be used amongst others. In particular, it is useful to uncover the tacit dimension of how use value is perceived by customers’.

Future research

We propose to develop measures for assessing the use value of servitized offerings. After which point, there will be a need to be validate and test for general applicability. The use of larger scale studies and a blend of multiple methodologies is likely to prove fruitful in such a pursuit.
References


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