

Discretion and complexity in customer focused environments

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Abstract

Operations have traditionally focussed on reductive analysis; transactional processes are open to mass-customisation and standardisation. This study proposes that service complexity created by extensive 'reasonable' customer demand, limits the ability to standardise and manage systems through mass-customisation. Beyond mass-customisation we propose management is by discretion. Discretion is difficult, if not impossible to codify, so operations are 'managed' via framework principles. These concepts are difficult to replicate and provide a source of sustainable competitive advantage, however, by their very nature, are also difficult to scale.

Highlights

- The paper provides an approach to understanding complex service provision in an arena where customer experience or perception is a key element of the value provided in the offering.
- The operational implications of the relationship between discretion and complexity are explored.
- It identifies two key conditions for the successful employment of services in such environment, namely proposition alignment and complexity control.
- The study also discusses managerial implications and actions needed.

Keywords:

Service complexity, task discretion, co-creative operations

1 Introduction

With changing and challenging market conditions manufacturing firms have worked to become more customer centric and innovative, creating offerings to better meet their customer value requirements (Gebauer et al., 2011). The boundaries between products and services are increasingly blurred, with many manufacturers offering services in support of their products (Heineke and Davis, 2007). Similarly, many service companies employ processes and methods developed in manufacturing operations, creating hybrid product-service transformations. Such offerings include services, defined as activities or performance provided to satisfy customer needs, whereas goods are tangible products or stable intangible assets. The mix may range from pure tangible goods, through hybrid goods and services, to pure service.

Technological progress has both enabled and hastened the pace of change in the way products and services are made and offered (Apt and Mason, 1995). For instance, the use of information systems makes business process outsourcing viable to many companies. Operations strategies are thus employed by firms to better configure their operations in the delivery of the complex integrated product service systems (Datta and Roy, 2011). Several concepts have emerged that encompass the reality of manufacturing and service firms, ranging from product-service systems, servitisation and high value manufacturing. This paper is concerned with the nature of these complex service enterprises and draws on theory to explore how managers may utilize discretion at the customer interface to absorb or attenuate variety.

Service offerings in operations may be described as a complex interaction of three transformations; ‘material-processing operations’, ‘information processing operations’, and ‘people-processing operations’ (Ng et al., 2011). Firms seek to offer a fuller market package of customer focussed combinations of products and services and the transition of companies has been termed servitisation (Vandermerwe and Rada, 1988). Servitisation creates a conflation of what were traditionally viewed as product and service which has given rise to a variety of different business models. Depending on the emphasis of the resultant model they may be described as product-service systems, experiential services, services sciences and service-dominant logic (Pawar et al., 2009; Sakao et al., 2009). But as products, services and product-service bundles become commoditised, customers focus on the value gained ‘in use’ (Ng et al, 2011; Vargo and Lusch, 2008). This means that the customers experience in being able to successfully unlock value becomes an integral part of the offering, and that at least part of the production design should explicitly aim at emotional engagement of customers (Fitzsimmons and Fitzsimmons, 2005; Heineke and Davis, 2007; Hartsuiker, 2008). Value is determined not through the products and services themselves, but by the value they co-create with their customers (Prahalad and Ramaswamy, 2004; Ordanini and Pasini, 2008). The ability to design a service offering which supports all parties in the processes of value co-creation, ‘co-opting the customer’ into creating the experience, becomes a source of competitive advantage for the firm. As such, there has been an extension of the process-focused shift towards greater customer involvement (Sower et al., 1997; Roth and Menor, 2003; Sprague, 2007). Research on service operations has also incorporated behavioural considerations, as discussed by Boudreau et al. (2003), Bendoly and Hur (2007) and Heineke and Davis (2007). This aspect of service operations is discussed next.

2 Service response

Despite the recognised importance that the customer plays in the creation of value, research has largely presented business-to-customer delivery case examples with little focus on the contribution made by the customer in the realisation of an experience (Bendoly et al., 2006). The early work of Vandermerwe and Rada (1988) which introduced the term servitisation used a language of ‘value add’ for example, “corporations throughout the world are adding value to their core corporate offerings through Services” and “added value in customer offerings is going into services”. Such language does not implicitly involve the customer and their resource as part of the value creating process. It has been claimed that the outcome of service provision is improved by the participation and enhancement of

dialogue with the customer (Lovelock and Young, 1979) and that both value and quality are perception based. Therefore, to achieve desirable outcomes, perceptions must be understood and managed as an integrated part of service operation (Parasuraman et al., 1985; Bitner et al, 1997; Ng et al, 2009). Pine and Gilmore (1999) and Fynes and Lally (2006) extend this approach to include offerings which create emotional connections, which may be revealed over time, and elements which require the active participation of the customer.

The customer's experience becomes an integral part of the offering, and, at least part of the production design, should explicitly aim at the emotional engagement of the customer (Sampson and Froehle, 2006; Heineke and Davis, 2007; Hartsuiker, 2008). Value is determined not through the product or service offering, but by the value it creates as perceived by their customers; a process requires that managers understand the value proposition of both, and capturing this interactive process is important for successful product definition, development and delivery. Using the passive/active and absorption/immersion axis classification of Pine and Gilmore (1999) to differentiate various customer experiences, experience-based operations fit in the immersive and active category. Customers must actively participate in and be an integral part of the offering, hence co-created (Prahalad and Ramaswamy, 2004; Hartsuiker, 2008). As shown by Martin and Pranter (1989), experiences are also influenced by other customers, who may through crowding, unruly or unanticipated behaviour negatively impact on the perceived service quality. Thus, employed processes must take into consideration a range of factors that may influence the customer experience.

We propose that enabling such experience-based offerings and associated operations require managerial focus on two concepts – *proposition alignment* and *complexity control*. The first covers coherent alignment between all stakeholders, while the latter explores the necessity to reduce complexity through standardisation and variation control to ensure quality in the offered experience. The meaning and role of these two concepts are discussed next.

2.1 Proposition alignment

Proposition alignment means that the offering experience should be coherent and comparable from customer contact and supply chain partner perspectives. Complex service delivery inevitably involves complex organisational solutions as ‘only variety can absorb variety’ (Ashby, 1958). As customers’ firms change they in turn demand greater service from their suppliers, driven by factors including downsizing, outsourcing and specialisation (Oliva and Kallenberg, 2003). It may not be possible to meet such demand with the resources available within a single firm and so the given situation requires firms to form networks or partnerships, which also involve the customer resources to achieve the desired outcomes. Such networks of inter-organisational relationships represent an intermediate state or hybrid solution between fully integrated functional organisations and the open market (Williamson, 1991). The resultant system may be described in terms of an enterprise, bringing together diverse by complimentary stakeholders to achieve a common purpose (Purchase et al., 2011). Firms with different but complimentary competences are necessarily driven by different value propositions and as such have different value perspectives, aspirations and fears (Mills et al., 2011). Thus the challenge lies in alignment of the value propositions such that the offering is experienced as coherent. In experiential terms, this has resonance with person-centred psychotherapeutic concept of ‘congruence’ (Rogers, 2004) where the internal feeling and external expression are consistent; a state perceived by other parties as sincerity. Achieving this state within a complex service system presents a challenge.

Following the classification of the touch point wheel (Davis and Dunn, 2002), there are distinct customer-experience segments - pre-purchase, purchase and post-purchase experiences - or Promise-Experience-Memory (PEM). Experience is determined by end user, or customer, reaction to all three segments. The enterprise must be aligned such that the promise, experience and memory of the service are all coherent. Similar to value stream alignment in traditional product offerings which features prominently in value-focused processes such as lean, the alignment ensures that all supply chain parties focus resources on the given value offering. PEM-type constructs become challenging when we recognise that the end user must utilise their resource to co-produce the offering (Heskett et

al., 1990; Pine and Gilmore, 1999). So the alignment is not only more complex in nature due to a larger number of participants, but also due to the two-way interaction between involved parties. The ability of firms in an enterprise to achieve such alignment is subject to the emergent nature of service experience, as value in use is context specific.

All parties within an enterprise bring different contexts at different times, changing the experience and memory that will emerge for all parties who are interacting and seeking value. So with any given service promise the enterprise must be able to absorb variety (to some extent) to deliver valuable experience. Such emergent phenomenon of systems and outcome experience relate to the complex nature of service and thus designing for service experience requires an understanding of complexity.

2.2 Complexity control

The second concept management must focus on is complexity control. Complex systems are made up of subsystems which interact autonomously, with rule sets that only emerge over time (Edmonds, 1999; Amaral and Uzzi, 2007; Daft, 2007). As such, actors within a context may define a system simple or complex dependent on experience of the system behaviour at that level of analysis (Parry et al., 2011). Designing service offerings that can cope with contextual variety to deliver a standard experience will undoubtedly remain a key operational issue. An early adopter of production concepts in services, application of scientific management to its operations was the key factor underlying McDonald's early success (Chase and Apte, 2007). Today, it arguably exhibits process applications to a greater degree than do many manufacturers in its main operating principles, such as standardisation and reduction of product variety, simplification and automation of processes and performance monitoring and control. The multitude of contexts that customers and suppliers bring suggests that variety of offering must be high, and firms and supply chains must have the flexibility to absorb the many different demands placed on them to produce desired experience outcomes.

Hence, while product variety-based competition may be declining as a competitive strategy, mass-customisation remains an essential production strategy for satisfying varied customer demand while retaining relatively low costs (Zhang and Krishna, 2007; Liu and Cui, 2010). As with other production processes, such an approach works best in reductionist environments where transformational tasks can be controlled (Purchase et al., 2011b). Given the great variety in possible customer expectations and preferences, task discretion becomes more difficult to codify or indeed manage in a service environment. Discretion here is the freedom or authority to make judgements and to act as one sees fit, which is understood as the role holder's ability to make procedural decisions (the independence from others when making those decisions). In customer contact service models (Metters et al., 2006) task discretion is controlled by limiting customer interaction to predefined encounters. But this is often unfeasible in experience-focused settings. Instead, institutions need the capability to manage customer interactions in relatively unscripted manners. This may require differentiation of work roles according to task discretion (Chase and Apt, 2007).

Unlike traditional product and service offerings, offerings with a significant experience-based element typically involve several interaction points with customers. This provides many opportunities for value added activities, but also many opportunities for mistakes or failure to realise customer expectations. To ensure offerings meet customer expectation, end user or customer involvement in the offering must be combined with techniques for task discretion to prevent human error (Conti and Warner, 1997; Lagergren and Kaulio, 2011). Organisations need to, and often do, pay attention to their front line staff and the services they provide. The distinction between high- and low-contact customer systems provides a basis for classifying service production systems. Following Chase's (1978) customer contact model of services, the less direct contact the customer has with the service system, the greater is the potential of the system to operate at peak efficiency since the transformation of products is easier to manage when customer interaction is limited. This results in the practice of decoupling services into front-office and back-office operations, with the former responsible for the high-contact elements of work and the latter taking care of the low-contact elements (Metters et al., 2006). Back-office work can be detached from the physical locations that deal with the customers and

relocated. However, in settings where such split is not viable, greater emphasis is placed on operations having the customer experience in mind in both design and employment stages. In experience-based operations, the closer interaction between customers and staff also means that links between internal and external service quality are more immediate. The two may even be difficult to distinguish, making it unfeasible to have too great disparity between back- and front-office and customer conditions.

Service-focused and experience-based business models are reliant on the labour element in creating competitive advantage and giving strategic opportunity to those capable of its development and sustainment (Heskett et al., 1997). It can be challenging to reduce complexity of staff-customer interactions through standardised and scripted responses while retaining the competitive advantage gained through personalised offerings. Its delivery requires devolution of power to frontline staff to act appropriately and in the best interest of the business. This greater degree of discretion places emphasis on selection of both staff and customers, and on planning and control of uncodified interactions between sales staff and customers to ensure the latter have a positive experience. It may be achieved by instilling a strong business culture, though this should be instilled from a firm's inception (Hsieh, 2010). PEM alignment may be achieved and performance better assessed through an ongoing audit of likely context and desired experience, as opposed to current pre-set performance metrics (Davis and Dunn, 2002). Making requirements for customer co-production explicit may further engage users emotionally. By being involved in the production of a product, consumers are likely to be more engaged with the brand, resulting in higher value compared to a traditional transaction process whereby buyers and sellers would interact only briefly to exchange cash for finished goods. It may also give rise to fresh ideas and new ways of conducting business (Christodoulides and Jevons, 2011; Amabile and Khaire, 2011).

3 Case implication

The conceptual argument provided in this study is next referred to the case example linking Sutton Borough Council in London with the Metropolitan police and local groups with a stated aim "to make Sutton the safest borough in London" (Andreu et al., 2011). Since safety to a large extent is perceptual rather than the actual risk of being a crime victim, service design must aim at the emotional element of the customer engagement (Fitzsimmons and Fitzsimmons, 2005; Heineke and Davis, 2007; Hartsuiker, 2008). Similarly, in the Sutton Borough, community interaction with Council and Police sets the experience value, in particular since perception rather than actual safety plays big role in community behaviour and crime fear. As such, the citizens co-create their experience with the various council staff (Pralhad and Ramaswamy, 2004; Ordanini and Pasini, 2008). This makes an experience-based operations perspective appropriate. The case study covers services characterised by significant customer interaction and complexity.

Services offered all have pre-set target outcomes, but given that individual actors both draw on and provide these services, they are heavily context specific. The service delivery must cover systems and processes required to design and manage effectively in such co-creating and non-standardised environment. This prohibits simple transfer of processes and techniques taken from more standardised production and service settings, while lack of structured process is likely to be both costly and difficult to organise and manage. In addition, planning and control of such uncodified interactions between sales staff and customers requires on-going performance assessment as opposed to pre-set metrics (Hsieh, 2010).

In dealing with crime prevention and the fear of it, the Council provides services characterised by significant customer interaction and complexity. There is a wide range of stakeholders and the population is heterogeneous, which increases coherence complexity, and indirectly also potential difficulties in ensuring value alignment. To ensure person-centred congruence (Rogers, 2004), coherent and comparable services must be employed across the Safer Sutton Partnership Service participants to ensure that all receive similar treatment. Such standardised service helps set expectation, which in turn affects perception (Bradley, 1998; Scribbins et al., 2010). The alignment necessitates that stakeholders are informed on decisions made and act in agreement, both with an

emphasis on the end user rather than immediate customer or interest. For any public organisation that needs to please its customer (the state) and its end users (its citizens), such alignment may be less straightforward than in other sectors.

To successfully provide experiences that customer desire, relevant components that impact the experiences must be incorporated deliberately and from the outset (Pine and Gilmore, 1999). Operations with a greater degree of customer interface necessitate particular consideration to the physical environment. Such 'servicescapes' are designed to influence customer and employee behaviour and their perceptions (Bitner, 1992). In crime prevention and crime perceptions, the local authority cannot control the environment to the high degree possible on the factory floor or an office environment. But physical manifestations that to citizens suggest a higher likelihood of crime being committed can be tackled. These include poor lighting, broken house or store windows, and wall graffiti. Ensuring that such problem areas are improved needs to be a priority in addition to appropriate physical environment, implemented processes and sufficient staff, managers must also incorporate behavioural components. Fynes and Lally (2006) and Voss and Zomerdijk (2007) emphasise the participation element, which suggests that the citizens must themselves be active in crime preventive measures to ensure a fully involved and valued experience. Relying on the Police or local authority may not be sufficient.

Crime management services are difficult to standardise effectively, which means that there is a significant reliance on high degree of task discretion among front line staff. Moreover, there is an interest from both Sutton Borough staff and the community to allow for such devolution of power to frontline staff, and allow them to act appropriately and in interest of community. This allows for potentially more customised service offering by the Borough, as well as enriching staff working conditions. For more dependable quality provision, in customer contact service models the task discretion is controlled by limiting customer interaction to predefined encounters that can be designed so that task discretion and staff skill is kept to a minimum (Metters et al., 2006). However, this is often unfeasible in experience-focused settings, where there is a need to manage customer interactions in a relatively unscripted manner, and a multitude of actors are involved at the various PEM stages (Davis and Dunn, 2002). In this case, purchasing stages are approximations for the worry of crime. And in the case of crime prevention and perception of crime, this applies to a great degree, since there are a large number of conditions at play; previous personal experience, background, specifics of individual events and so on all factor in.

The customer involvement also necessitates the use of fool-proof design to ensure that their own actions do not inadvertently affect experiences negatively (Hart et al., 1990; Bendoly et al., 2006). If employed correctly, such poka-yoke techniques provide the benefit of reduced customer discretion while simultaneously retaining their feeling of control. The former is necessary to meet quality standards and, in turn, customer expectation. Such expectation management is vital in the design and management of service operations.

So there is a need to modify the existing back/front office split, moving away from the typically proposed open access and service interaction approach to a more closed one where the Borough citizens only have (limited) visibility to assigned front persons. The latter should be part of the Safer Sutton Partnership Service, but have dedicated and exclusive citizen-interfacing roles. This also means that job roles must be set according to required task discretion degree (Conti and Warner, 1997; Chase and Apt, 2007; Ritchie and Angelis, 2010). In a normal product or service context categorisation of job families is useful because it clarifies where operations can be standardised and where highly skilled staff is needed. However, in an experience-based environment it is often the lowest trained staff that has the greatest degree of customer involvement. And in this interaction the degree of task discretion may be difficult to fully take out, which may necessitate investments in higher skilled workers or more training. Automation can be employed to reduce discretion, for instance, through the use of scripted responses to customer requests. But such deskilled tasks does not fully utilise staff, nor does it help in attracting skilled employees, or creating a satisfying experience for distress citizens. Instead, functional flexibility may allow for staff rotation (Hootegeem et al., 2004), enabling for greater staff assignment selection, simplifying recruitment for given tasks, and quite possibly improving crime fighting as well since it allows for dedicated teams.

It may be advisable to increase control of the citizens' fear of crime and related experiences by shifting its focus to more manageable elements. After all, the perception of quality in the crime fighting is influenced by outcome as well as its process (Martin and Pranter, 1989). Such approach may entail a resource re-allocation of Police and Council staff in the way they interact with the community to ensure locals not worried about potential or real crime in the area. While similar in nature to Police patrolling, emphasis is on perception management rather than crime fighting. These encounters can be with or without physical presence depending on allocated resources. Such an approach also allows for improved risk management, which is a key element in the Sutton Council strategy plan.

4 Conclusions

This study extends the service provision to incorporate the end user experience in the value provision, and explores how the necessary discretion in the service offering can be managed effectively. This is illustrated with the Sutton Borough Council case. We argue that successful experience-based operations require managing the often conflicting elements of opening up the value chain to the end-user or customer in pursuit of co-creating value, and the need to control the experience through reduced complexity and discretion. The challenge Sutton Borough council faces is to reduce complexity of staff-customer interactions through standardised responses while retaining personalised experience to deliver a quality service - a feeling of safety in this case. This may sit poorly with service provision and the underlying operations, both conceptual and empirical, and in particular with those that have a substantial experience element in them because of the greater variety involved. Contrary to servitisation theories, it may be necessary to reduce the co-creation part when the experience and perception element is substantial because of difficulties to control experiences in an effective manner. Further research is needed on the management of co-creation, in particular in settings with multiple stakeholders and a combination of customers and end users to consider. As such, the limits of co-creation in service provision, and its operational impact, can be explored in a model on servitisation employing complexity and discretion control for improved performance.

5 References

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