Conceptualising contracting for complex services: buyer and front-line employee separation

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Abstract

Theoretically embedded in resource dependency theory and service supply chains this conceptual study explores the complexity of contracting for services delivered by people (e.g. one to one consulting, types of health and social care). Two dimensions critical to correctly contracting for complex procurements that involve personal delivery are identified and help create a conceptual model.

Keywords: Service supply chains(SSC), contracting, front-line employee(FLE)

Introduction

This study follows others in starting from the viewpoint that there is a deficit of work on service supply chains (SSC) compared to manufacturing / product supply chain (MPSC), and that this has a particular impact on extant knowledge of services procurement (Ellram *et al.,* 2004). First, the study examines whether there is an overarching model or framework for SSCs as is found in MPSC.

Based upon an extensive review of extant literature in service supply chains, and how complex procurements of services are conducted, a gap is identified. In traditional or product led procurement, there is in the main an assumption that the buyer has some relationship, indeed receives some feedback from, the end-user (accepting that this feedback may be mediated several times over by layers of hierarchy, geographic distance etc). What is different in some service supply chains when a complex service is being bought/procured, is that the all important in many service contexts 'frontline employees', who are critical to service delivery may have no contact, no feedback with the buyer. Therefore, this study proposes there is a gap in current knowledge in services procurement, around the impact of detachment or separation between the [external] buyer and the front-line employee(s) [FLE] responsible for service delivery. This is likely to be seen at its most obvious in a SSC where the core function is outsourced. Secondly, the literature review as part of this study has found that service procurements can be complex for a variety of reasons (including separation of buyer and FLE being one, but also where long

time scales add complexity, where assets are used and returned, where the service needed is both continuously adaptive and customised and so). But where as in this study the focus is on service contracts where complexity is added through separation of buyer and FLE, then the degree of homogeneity in performance of the service role that has been bought or commissioned is critical. Accordingly, this study aims to provide insight into complex procurements of services, and proposes a conceptual framework (figure 3). Therefore, given that product led manufacturing procurement techniques will be not appropriate, this study addresses the research question 'how to manage complex procurements under conditions of buyer and front-line employee separation and varying homogeneity of service performance by FLE's.

The paper is organised as follows, after the introduction the next section reviews various attempts to create an overarching model for service supply chains similar to for product/manufacturing studies. Resource Dependence Theory (RDT) and this research grounding in it is explained in the following section. Service categorisations follow that section to create our conceptual model. Then two dimensions of the model are explained which is followed by the presentation of a conceptual model of contracting for complex services. Finally, the last section offers a brief overview of the paper and some tentative avenues for further research as well as acknowledging limitations.

Literature review

Service supply chain

As the "engine for the economic growth" (Wang et al., 2015, pp.696), services are significant economic activities in developed countries (Sengupta *et al.,* 2006; Niranjan and Weaver, 2011). Despite the fact that services are a larger portion of the economy than manufacturing in the world economy (Metters and Marucheck, 2007, Giannakis, 2011), and that research interest on service supply chains has been increasing over last decades (Song and Xu, 2011), SSC studies are still in their infancy in comparison to traditional supply chain (SC) research (van Ark *et al.,* 2008). Whether a generally acceptable standardised framework for SSCs can be achieved has been a commonly raised question (e.g. Ellram *et al*., 2004) since several widely acceptable frameworks for traditional SCs exist and work successfully for the manufacturing sector (e.g. SCOR model, H-P model, GSCF) (Baltacioglu *et. al,* 2007). A well managed SC has been acknowledged as the source of an organization's success in the manufacturing sector (Prasetyanti and Simatupang, 2015), hence, early studies on the service sector in the supply chain management (SCM) area were limited either to comparing or to trying to adapt traditional [product] SC practices to services.

A comparison of managing outsourced manufacturing and outsourced services is provided by Allen and Chandrashekar (2000). Another comparison is provided for supply chain integration in the manufacturing versus service sector (Frohlich and Westbrook, 2001). In their study where Cook *et al.* (2002), implemented traditional SCM concepts into service industry, these researchers concluded with drawing attention to the insufficient systematic integration of SC functions for service industries. To indicate the applicability lessons learnt from manufacturing tools, to services, Swank (2003) adapted lean manufacturing to the insurance business. Kakabadse and Kakabadse (2002), compared service outsourcing in the United States and Europe. Yet none of these studies were sufficient to create a comprehensive framework for understanding and managing the SSC (Ellram, 2004). This is clearly a consequence of service system being complex by its nature (Xing *et al.,* 2013).

It appears there are distinguishing characteristics of services that prevent service supply chains being studied in the same way as manufactured products. Therefore, various authors have called for the separate requirements for SSCs to be recognised both in terms of definitions, and frameworks, for SSCs (Baltacioglu *et al,*. 2007; Sampson and Spring, 2012; Kathawala and Abdou, 2003). It seems that the variety of distinguishing characteristics of services compounds

and prevents a catch-all definition even within the attempts created specifically for services (Song and Xu, 2011). Ellram *et al.*(2004, p.25)'s definition of SCM with a focus on professional services is "Supply chain management is the management of information, processes, capacity, service performance and funds from the earliest supplier to the ultimate customer". Song and Xu (2011, p.1) defined the concept from producer's point of view "the Producer Service Supply Chain (PSSC) management is an integrated management mode of service information, service processes, service capacity, service performance and service funds from the initial service supplier to the ultimate customer in the process of producer service outsourcing." Baltacioglu *et al.,* (2007, p.112) highlighted the three main units of the SSC and defined them as "The SSC is the network of suppliers, service providers, consumers and other supporting units that performs the functions of transaction of resources required to produce services; transformation of these resources into supporting and core services; and the delivery of these services to customers." In their definition of SSC Li and Lui (2013, p.2263), emphasize the ultimate aim "SSC is a service-network that reorganizes different service entities in order to satisfy customers' require by using modern management technology to break down and rebuild a system which considers customers' demands as a starting point and takes a complex service or an Integrated Service Package as a series of processes in service when the service-industries are developed to some extent." Lastly, Breidbach *et al.* (2015, p.5), highlighted the engagement and network concepts and defined the SSC as; "SSCs are distinct components of larger value networks that consist of one or multiple service providers who engage with one or multiple service customers for a common purpose". Besides these SC definitions customised for services, the extant literature to date also provides frameworks specifically designed for service supply chains.

Ellram *et al*. (2004) in their study compared three well known SC frameworks from the manufacturing sector, and thereby underlined the reasons of why each of the three frameworks was not suitable for services. For instance, services would not work with the Hewlett Packard (H-P) model since services are not tangible and they don't have inventories. Moreover, the separate processes of make, deliver and return that take place in the SCOR model are not applicable for services. Finally, Global Supply Chain Forum (GSCF) Framework is also not applicable since services do not have a return cycle. Based on these obstacles to using traditional / product SC models, Ellram *et al.* (2004), proposed their model of SSC framework which focuses on purchasing professional services from a buyers' perspective. Another contribution to the literature on SSC frameworks is the IEU-SSC model that covers three basic units in the chain: the supplier, the service provider and the customer (Baltacioglu *et al.,* 2007). Aiming to standardise the service processes, Giannakis (2011) proposed another SSC framework from a new perspective. Finally, Maull (2012) proposed a framework of SSC from a customer perspective.

This section has discussed various attempts at producing an overarching framework for services much as the ones for manufacturing related activity. However, the lack of agreement in the literature confirms the need for further research into different types of SSCs and the next part of the paper narrows down to discuss specific gaps.

SSC literature gap

Despite a common acknowledgment of the significance of the "human factor" as the core differentiating function of services (Baltacioglu *et al.*,2007*;* Ellram *et al.* 2004; Cook *et al.,* 2002), none of these frameworks considered above focuses on the frontline employee (FLE). It is the FLE who has the closest interaction with the customer, and who does the core function; delivery of the service — as a completely separate unit of analysis to a focus on the management of the actual service delivery. Furthermore, the management of FLEs becomes even more complex in the case of service provider outsourcing. where the buyer is physically

distant from the service delivery process that takes place between the buyer's customer and the service provider (Li and Choi, 2009; Niranjan and Metri, 2008). There are studies with a focus on professional services' delivery (e.g. Lewis and Brown 2012; Heineke, 1995; Harte and Dale, 1995; Brown and Swartz, 1989) however, they tend to separate the management of professional services which are intellectually based services; e.g. management consulting, from a more general FLE concept which also includes businesses where FLE's perform non-intellectual service processes; e.g. call centres.

Thus, this study's main focus will be on the gap in management literature on the role of FLEs in outsourced service contexts, from the buyers' perspective. The next section informs the decision of which theoretical lens to adopt.

Resource dependence theory

According to RDT, an organisation is an open system which is dependent on contingencies in the external environment (Pfeffer and Salancik, 1978). Due to the organization's inability to be completely self-sufficient, it tends to build relationships with other organisations which in turn creates interdependencies (ibid). Managers' business control actions to reduce environmental uncertainty caused as a result of these interdependencies is called power (Ulrich and Barney, 1984). Lack of this power may cause a buyer to pay more than expected for the contracted services or to receive less than expected for the contracted price (Ellram *et al.,* 2004)

To focus on what they can do best and outsourcing the remaining tasks to other providers (Holcomb and Hitt, 2007), firms inevitably create this interdependency between themselves and provider firms. The argument put forward here is that then the quality of the delivered service is therefore, directly linked to business controls over the FLE's. Thus, in order to be able to standardise the management control of FLE's, from an RDT perspective, this study will be able to propose a model of differentiation between services according to most the most explicit distinguishing characteristics that are seen in different degrees between one service and another.

Service categorisation

Services have been segmented into various forms from many marketing literature scholars in the extent literature (e.g. Judd, 1964; Rathmell, 1974; Shostack, 1977; Chase, 1981; Lovelock, 1983; Akkermans and Vos, 2003; Allen and Chandrashekar, 2000; Ellram *et al.*, 2004; Sampson, 2000; Vargo and Lusch, 2004)

The diversity of services defies the application of general managerial approaches. Lovelock (1983) proposed a classification based on customization and judgement in service delivery, and Chase's (1981) proposed a customer contact approach; these are perhaps the most well-known instances of service categorisations.

In the wake of the first extensive service classification review (Cook et al. 1999), there are several comprehensive reviews of existing service classification literature (e.g. van der Valk, 2008; Ellram et al. 2007). Analysing those literature review studies, the service attributes used for classification are; extent of customer contact, degree of tangibility, degree of customization, degree of interaction/customer participation, object affected, complexity, type of customer application, divergence/degree of routinization, basis of services and number of customer processed/time unit (van der Valk, 2015). Yet none of these studies are sufficient to meet our segmentation requirements of services to draw a conceptual model that can be used to classify the degree of complexity required to managing them.

To this end our model will consider the three leading characteristics of services that are commonly considered as criteria distinguishing them from goods; intangibility, heterogeneity, inseparability (Parasuraman *et al.,*1985; Ellram *et al.,* 2004; Breidbach, 2015) from the buyer's

point of view with taking the FLE as the centre of this model. We will not include the fourth common characteristic; perishability since all of the services are subject to that one.

The first dimension: the degree of scriptability

The first dimension of our model is related to two main characteristics; intangibility and heterogeneity of the services. Intangibility as the principal distinguishing characteristics of services (Lovelock, 1981; Parasuraman *et al*., 1985) makes them 'performances' rather than 'things' since they cannot be seen, touched, smelt or tasted and heterogeneity, stresses the uniqueness of each performance where both causes the difficulty in standardizing the services. (Baltacioglu *et al*., 2007). Here the concept of script fits the required management control need since they have been used as a job design tool which enables managers to assure that employee actions (during the interaction with customer) are at the desired level in their absence (Tansik and Smith, 1991). Even though there are some connected segmentation attempts shown in the previous section e.g.; degree of customization, degree of routinization, task programmability, none of them approach services with their affiliation of task scripts.

Most of the research on scripts either in marketing field (e.g., Hubbert *et al.,* 1995; McCallum and Harrison 1985; Mohr and Bitner 1991; Smith and Houston 1983; Solomon et al. 1985) or in organizational behavior field (e.g., Ashforth and Fried 1988; Gioia and Poole 1984; Lord and Kernan 1987), has been based upon script theory (Abelson 1976, 1981). Abelson (1971) taking a psychological perspective used the word "script" to describe a pattern of behaviour or a routine of operation which is prompted by some environmental incentives. In the absence of management to steer FLE-customer interactions, the use of scripts make a degree of control over that interaction possible (Tansik and Smith, 1991). Depending on management's expectation from the script, it can be used to varying degrees of strictness, from a rigorous to more malleable application (ibid). This adjustable characteristic of scripts allows them to be used in diverse forms of service processes i.e. both as standardized or customized encounters (Victorino et al., 2013).

The second dimension: the degree of physical separation between buyer and FLE

The second dimension of the model depicts the physical separation between buyer and the FLE employee based on the inseparability and again heterogeneity characteristics of the services. The human interaction between customer and service provider underlie the concept of heterogeneity in the literature and the inseparability characteristics of services means that they are created at the point of use (Ellram et al., 2007). "the higher the degree of intensity of the interaction of the people and other resources, the more difficult it will be to control and manage the production and delivery of the value package (ibid)."

To cope with these characteristics in a FLE-customer interaction control level it is required to be aware of how complex is this control in comparison to other services.

Interaction theory was initially pioneered by the IMP Group to provide a better understanding through the study of as relationships (Anderson et al., 1994). However much of their approach was limited to dyadic organisational relations, neglecting triadic relationships e.g. where a buyer contracts with a supplier to deliver services directly to it's (buyer's) customer (Li and Choi, 2009; Niranjan and Metri, 2008). In fact, triadic relationship studies are still rarely acknowledged but are significant in differentiating triadic interaction service interactions from manufacturing (Wynstra et al., 2015) see figure 1 below.

To depict this separation, we will use a linear flow of power since the buyer is no longer the only owner of the control over the service delivery to its customers but the buyer is still dependent on the lower levels of managements i.e; how the service supplier manages its FLE (figure 2).

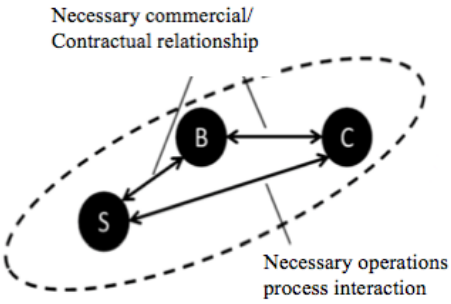

Figure 1. Service triads; buyer-supplier-consumer relationship

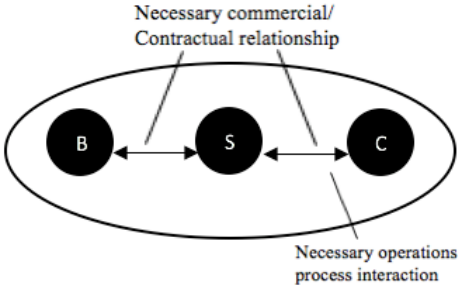

Figure 2. Buyer's separation from operations process interaction

Conceptual framework: contracting for complex services

Ellram *et al.* (2007), provide a model where the organization's total services spending are segmented based on value and risk. Later, in a more recent study Ellram and Tate (2015) proposed another segmentation of purchased services which is adapted from Kraljic's seminal matrix (1983), this time to categorise the purchased services from low to high complexity and the on-going value or influence of the service to the organization. This valuable contributions are limited to make a comparison of services within the organisation.

On the other hand, Lu (2016) provided a model to service contracting literature that classifies services into four categories according to task programmability and outcome measurability of contracted services. His model with the focus on assigning an optimum way of control to each segment is the closest model to ours.

Describing four types of service groups through the proposed notion of *scriptability* and *physical separation between buyer and FLEs* dynamics of services, this conceptual framework of CCSs (figure 3) aims to prepare a substructure for a better management control of contracted services. In the following paragraphs, the model is explained with exemplifying the most and the less complex contracting instances for services.

The first quadrant shows the services where physical separation between buyer and FLE is short; e.g. call center services which a bank outsourced from another supplier the service delivery is not complicated to control since the physical separation between buyer (bank) and the customer is short and the scriptability of the task is considerably high. The heterogeneity of this instance is relatively small, thus, the control of buyer over the FLE can easily built. The forth quadrant, on the other side, indicates the services where scriptability of the task is low and the physical separation between buyer and FLE is high. Social care services which are procured by National Health Service (NHS) of UK through local authorities from other service provider organisations to be served the citizens can be an example of a long physical separation between

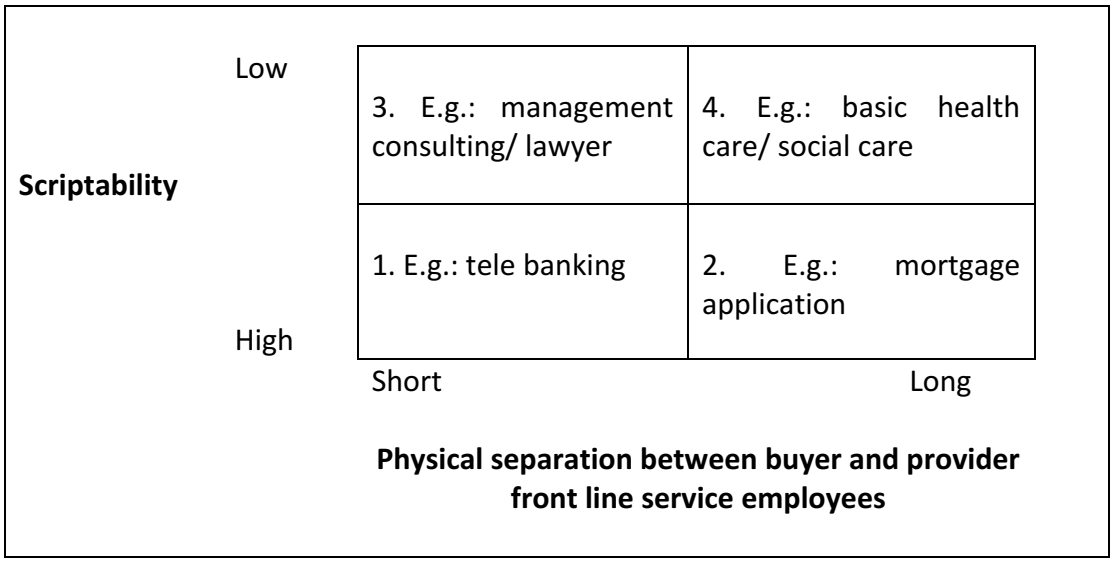

Figure 3. Contracting for complex services

buyer and FLE. The social care services are also considerably heterogenous which makes the task more difficult to standardise and uniform through a written script. Thus, the buyer requires a more meticulous contract design to be able to build power not only over the service provider but also over the employee of the service provider who delivers the actual service to buyer's customer; the FLE.

Conclusion

The reliance on outsourcing services is a steadily growing trend, thus, contracting for outsourced services is an interesting area of research. The aim of this conference paper was to highlight the status of the SSCs and to define the literature gap. Furthermore, it aimed to propose a conceptual framework that can shows the degree of complexity of service contracting for any kind of outsourced services. This framework, most generally built on the basis of heterogeneity characteristics of the services, indicates the degree of scriptability of the task and the buyer's physical separation from the actual service delivery of the services. And ultimately aims to be able to recommend the level of required control degree that is enforced to the service provider through a contract. From the RDT point of view, this model aims to create a better understanding of the complexity level of managing the service provider for the buyer.

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