

# Understanding the factors that enable and inhibit value creation in buyer-supplier relationship within the outsourcing of IT services

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## Abstract

This study contributes to literature on value creation in buyer-supplier relationships as well as literature on IT service provision. It makes a first attempt at building a comprehensive model of the factors that enable and inhibit value creation within buyer-supplier relationships. A distinction is made between value drivers with a direct influence on value creation, operational- and strategic performance, and moderating contextual factors that may enable or inhibit value creation from taking place. Initial application of the model to an IT service provision context is provided. Further case based and survey based applications are needed to develop and validate the suggested model.

**Keywords:** Outsourcing; Value creation; Inter-firm Relationships.

## 1. Introduction

IT outsourcing is becoming increasingly important to businesses. The market for IT services has been growing steadily in the past years measured as a percentage of total IT budgets. Apparently however there are many examples of failed IT service outsourcing arrangements and this is a major challenge to the economy. There is plenty of research on outsourcing of manufacturing processes (Aron and Singh, 2005; Holcomb and Hitt, 2007), but only little research on outsourcing of IT services (Aundhe and Mathew, 2009; Lacity and Willcocks, 2001).

When firms outsource IT this often involves substantial asset specific investments (Lacity and Willcocks, 2001), buyer-supplier relationships (BSR) are formed and interdependencies established. This has relational implications and affects the way value is created in the supply chain (Ulaga, 2003). The BSR as a unit of analysis is therefore central to our understanding of the success and failure of IT service outsourcing. The present research contributes to research by making a first attempt at building a comprehensive model of the factors that enable and inhibit value creation within BSR.

Value creation is concerned with processes that improve operational- and strategic performance of a firm, and extends beyond the boundaries of the firm to involve integrated business processes among suppliers, manufacturers, and customers (Villena et al., 2011). In a BSR value creation is regarded as the essential purpose for a customer

firm and a supplier firm engaging in a relationship and includes a trade-off between multiple benefits and sacrifices gained from the relationship (Anderson, 1995).

Previous research has demonstrated how value creation is a prerequisite for strong and enduring BSR (Lawson et al., 2008), but also how investments in mechanisms that foster integration, collaboration, and coordination is a requirement for value to be created (Sanders, 2008; Zajac and Olsen, 1993). Social capital has further been found to both foster but also impede value creation within BSR (Villena et al., 2011). These are all findings relevant to this study. However, currently little is known about how value is created in BSRs in services, and specifically within relationships formed after IT services outsourcing. The IT function, and the value it provides and creates, is important to understand. Just like logistics and transportation, the IT function traditionally helps the focal firm bridge important spatial gaps through a largely supportive role. IT can provide competitive advantage (Porter and Miller, 1985), and is increasingly seen as a strategic enabler (see for example Hammer and Champy, 1993; Davenport and Short, 1990) for many reasons including the rapid proliferation of consumer needs and related new product and service introductions, but also the internationalization of demand and supply markets. However any value misalignment between buyers and suppliers of IT services can potentially lead to unsatisfactory performance outcomes for both.

Thus, given conditions of globalization and the increasing prevalence of IT service outsourcing, it is critical that we begin to identify factors that need to be taken into account in order for us to better understand and predict value creation in such settings. Thus, this research is guided by two research questions:

- a) What are the dominant relationship value drivers in BSR within IT service?
- b) What are the contextual factors that might be related to the value creation capability in BSR within IT service?

The rest of the paper is organized as follows. Closely related literature on value creation in BSR are presented. The next section describes research methods. Section 4 presents initial findings, while the concluding section discusses the implications of the findings, as well as directions for future research.

## 2. Literature review

It is important to understand value creation in BSR because it is the essential purpose of relationships (Sinha and DeSarbo, 1998; Ulaga, 2003; Woodruff, 1997). However while the basic concept of value in BSR may be familiar to most researchers, the actual operationalization's of the construct vary a great deal. Table 1 summarizes representative studies on value in BSR and the operationalization's of the construct used in these studies.

Table 1 - Representative uses of the value construct in the literature.

Author	Context	Value construct	Factors identified	Perspective	Method
Bowman and Ambrosini (2010)	Value creation and process is defined	Resource based view	Primary and support activities	Dyadic	Conceptual

Crosno et al. (2015)	Software supplier industry	Change request	Compliance, Opportunism, Behavioral control, Change requests, Outcome-based control	Buyer	Survey
Grundinschi et al. (2014)	Health care industry	Collaboration fluency	Trust, governance and communication	Dyadic	Survey
Hurmellinna, (2002)	Finnish High-tech industry	Innovation in collaboration context	Suppliers R&D capabilities	Dyadic	Case study
Lin and Tang (2009)	Taiwan Hsinchu science industry	Value drivers	Intangible assets, human assets, innovation assistance, structural assets, relational assists	Industry specific	Survey
Liu (2012)	Information technology industry	Value is created through learning	Learning intent, absorptive costing, technology uncertainty, cross-cultural difference and trust	Supplier	Survey/ Interview
Mukherji and Francis (2008)	US automobile industry	Mutual adaptation	Joint action, dependence and trust	Dyadic	Survey
Nyaga et al. (2010)	A wide range of industries	Perception alignment	Information sharing, Joint relationship effort, dedicated investment, commitment, trust	Dyadic	Survey
O'Toole and Donaldson (2002)	Industrial buyer perspective in the UK	Value drivers	Flexibility, lower costs and stability	Dyadic	Survey/ Interview
Revilla and Knoppen (2015)	Spanish manufacturing industry	Knowledge /information sharing	Knowledge integration, trust and strategic supply management, operational efficiency, innovation	Supplier	Survey
Ulaga (2003)	Manufacturing industry (USA)	Value drivers	Delivery, Quality, Direct cost, indirect cost, personal interaction, process, innovation	Buyer	Case study
Wang and Wei (2007)	Manufacturing firms in Taiwan	Supply chain flexibility	Relational governance, virtual integration, information visibility	Dyadic	Survey
Walter et al. (2001)	Multi regional companies in Europe	Functions	Direct and indirect functions	Supplier	Survey\
Yoo et al. (2012)	Media industry	Value drivers	Technology, market uncertainty, technology capabilities	Startup firms	Case study

Value is often presented as a tradeoff between benefits and sacrifices (Sinha and DeSarbo, 1998; Ulaga, 2003; Woodruff, 1997) and may be perceived differently from the viewpoint of employees, owners, customers and suppliers (Bowman and Ambrosini 2010). Value is therefore a complex construct, but also a construct which when

understood, holds considerable potential for successful operations management. We suggest that the lack of stability and robustness in some BSR may be partly due to a lack of knowledge as to how value is delivered, created and captured. The model presented in figure 1 is derived from the disparate literature. The model provides some suggestions but it is far from complete.

Based on our structured literature review we propose a distinction between value drivers and contextual factors.

Relationship value drivers are antecedents to relational value creation (Ulaga, 2003, Walther et al., 2001), and are thus areas from where the buyer and the supplier respectively will be able to create value from the relationship. Value drivers from a buyer perspective refer to performed activities and employed resources of the supplier and captures what the supplier is contributing to the relationship and thus to the buyers value creation (Ulaga 2003; Walther et al. 2001). Value capturing may further manifest itself as improvements in operational and strategic performance (Nyaga et al., 2010; Villena et al., 2011). From a buyer perspective operational benefits have been suggested to manifest in improvements in cycle time, cost, quality, delivery, and flexibility (Krause et al., 2007). Strategic benefits are concerned with exploring new opportunities to create value and have been suggested to manifest in introduction of new generation of products, extending the product range, open up new markets, and enter new technology fields (Villena et al., 2011).

Contextual factors on the other hand are mediating constructs that either enable or constrain the supplier or the buyer from performing activities and employing resources to the relationship for the benefit of value creation and improvements in operational and strategic performance. Literature within marketing, general management and operations management has suggested a multitude of factors that may influence a well-functioning BSR, however no attempt has been made to link these factors to the value creation process and to factors of operational- and strategic performance. Based on the literature contextual factors may further be understood in terms of the interaction environment, the relationship atmosphere, the interaction process and the characteristics of the involved interacting relationship parties (Håkansson, 1982). Figure 1 illustrates the general model on value creation in BSR based on literature presented here.

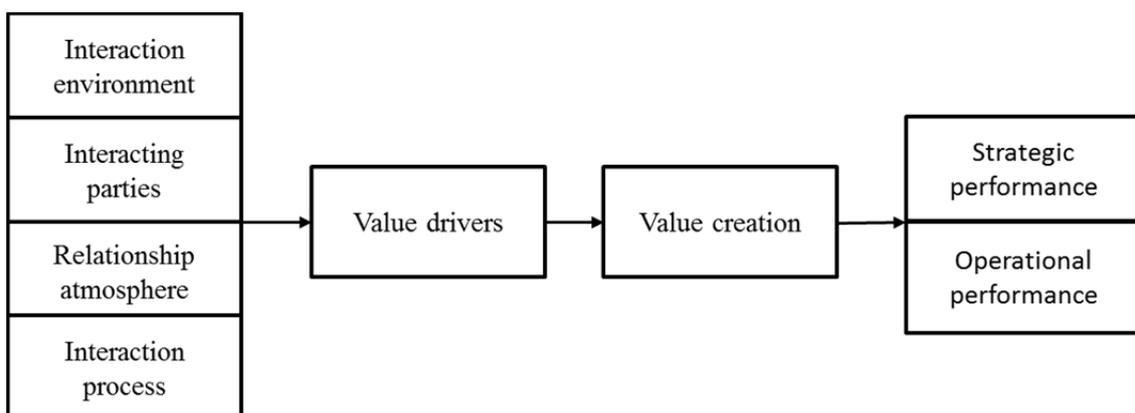


Figure 1 – A general model on value creation in BSR.

### **3. Design/methodology/approach**

Although value creation within BSRs have been discussed extensively in the literature, there is a paucity of research about the process that creates value. Therefore our research is exploratory and necessitated qualitative methods. By using a field-based approach we were both able to identify constructs and develop an understanding of the contribution of the identified constructs to value creation and performance (Eisenhardt, 1989).

Our research method involved two main steps. First, we conducted an extensive structured literature review to access extant knowledge in the BSR area. A total of 169 papers in a cross literature sample were identified, using key words search. A total of 54 constructs relevant to the value creation process in buyer-supplier relationships were identified. The second step in our research method was an application of the grounded theory development methodology (Glasser and Strauss, 1967). Interviews were held to help tie the constructs to BSR value creation. Prior to entering the field, an interview protocol was developed and updated for each interview in accordance with the grounded theory development approach. Each interview was initiated with a card sort exercise (Paul, 2007). Each card reflected one of the 54 constructs identified through the structured literature review as relevant for the value creation process in buyer-supplier relationships. Respondents were asked to reflect on a set of different scenarios, arrange the cards under the drivers and interaction environment for their value creation, and to prioritize the most important cards under each respective category. The main idea with the card sort exercise was not to limit the dialogue to reflect what was in the literature, nor was it an idea of replication. The card sort exercise was mainly used as a trigger for dialogue in and around the identified value related constructs, and how they were related and related to a set of different cases revealed by the interviewees. Interviews were recorded and subsequently transcribed and coded. The coding process had two main components: First within case analyses and then cross case analysis (Miles and Huberman, 1994). Within case analysis helped us to identify the value creation process in buyer-supplier relationships in a single context, while the across case analysis served as a form of replication where value creation models and the connection between identified value constructs were compared across interviews and identified cases (Yin, 1994).

### **4. Preliminary findings**

Based on the examination described above, a set of BSRs within the IT service industry were identified (Figure 2). The model highlights identified factors from the structured literature reviews that were also found to be applicable for the IT service context. The findings also highlight the importance of new value related factors and dynamics within this specific industrial context. These new factors are marked with “bold italic” types in figure 2. In relation to interaction environment the level of industrial change was confirmed as an important factor. In addition, even though the role of national culture alone was downplayed by the respondents, cultural differences and organizational compatibilities seemed to play a part in constraining or enabling value creation in this industry (Søderberg et al., 2013), as most BSRs was inter-cultural in their nature. In relation to characteristics of the interacting parties, the level of organisational change in the buying organisation was suggested as impacting the ability to deliver value, being a force with an inherent disruptive nature in relation to the already established value creation routines.

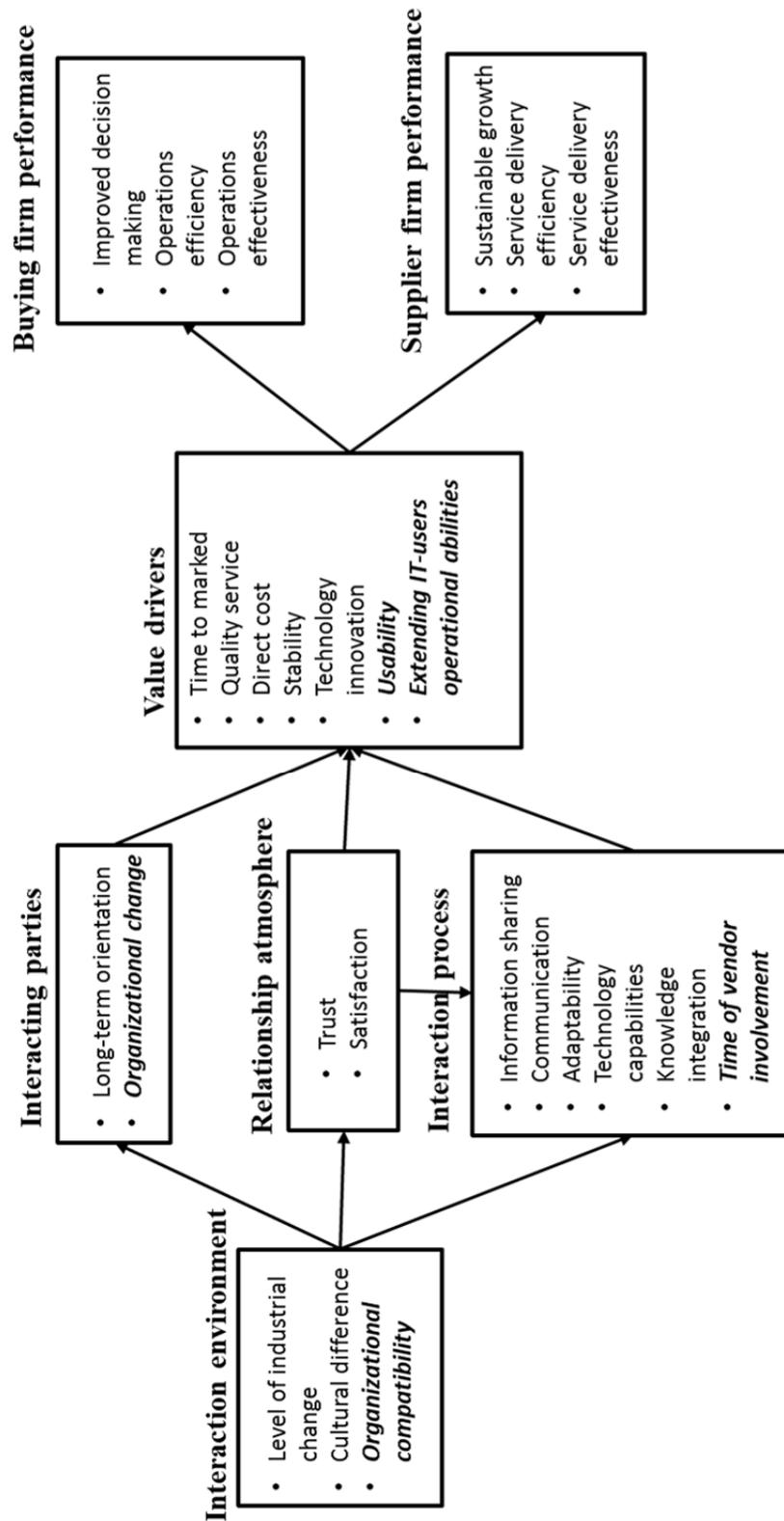


Figure 2 - Key drivers of value creation in BSR within IT service provision based on empirical data.

Additionally, the level of intellectual property protection was found to be a constraining factor, in that it appeared to affect vendor ability to innovate on behalf of their clients. Similarly and related to the interaction process between the buyer and the supplier, the timing of the involvement of the IT service vendor in the IT development process was found to be an new important contextual factor with the potential to either enable or constrain value creation. Besides this new factor, several other factors suggested in the literature and related to the interaction process were found important in the context IT services. Especially prominent were factors focusing on the involved parties abilities to adapt, and to communicate and share information and knowledge. In relation to value drivers, time to market was notably highlighted as an extremely important value driver for customers. Here a distinction was made between early stages of the relationship and the later more mature stages. In early stages customer sourcing IT service focused mostly on service quality per direct cost, time to market, and stability. At later stages of relationship maturity technology innovation was added as an additional value driving factor for customer. Usability and how the IT users operational abilities was extended by the IT service vendor in the implemented IT design was found to be two new important value drivers. Finally the empirical evidence suggests that value drivers are antecedents to a buying firm's operational efficiency and effectiveness as well as enhances the buyer's decision making, and this is where the created value materialised for the buyer. For the supplier value was found to materialise as sustainable growth as well as more efficient and effective service delivery.

## **5. Conclusion**

Grounded in the increasing prevalence of IT service outsourcing, this research seeks to identify the factors that needs to be taken into account in order for us to better understand and predict value creation in such settings. Specifically the paper explores what the dominant relationship value drivers in BSR within IT service are, and which contextual factors that might enable or constrain value creation within such context.

Based on a combined structured literature review and a field study building on the principles of a grounded theory development methodology, a comprehensive model on value creation in BSR within IT service provision is suggested. The research presented in this paper adds to theory in several ways. Firstly, the structured literature review adds to literature because it builds on a comprehensive cross sectional sample and thus seeks to integrate different fields of research. As far as we know this study is the first to explore the concept of value creation in BSR extensively across the operations management, marketing and managerial field. The 54 identified "value creating" related factors, adds to literature as a new comprehensive list that may be the substance of further enquiry. Secondly, the model presented in figure 2 is new. It contributes to literature by being a first attempt to develop a buyer-supplier value creation model for the provision of IT services. Thirdly, the highlighted link between value creation and operations performance is new, and needs to be explored further. Questions such as this should be addressed: How does each of the identified value drivers' impact operations performance for the buyer, respectively the supplier? Future research should also explore more fully how time or the maturity/duration of the buyer-supplier relationship impacts the identified value factors. Here initial findings suggest that the contextual factors and the value drivers such as for instance the innovation capabilities of IT service vendors change over time. However, given the high performance of the service vendors, it is also important to determine whether its the actual capabilities that evolve,

or the buyer perception of these capabilities that change over time. This will help in understanding and solving the value misalignment problem better.

The research presented here as all research have its limitations. The qualitative field based approach applied is a limitation and findings cannot be generalised without further applications. Future research is urged to do more empirical research on how value is developed in BSR within the context of provision of IT service. Also future research could, based on the model presented here, formulate and test a set of hypothesis to confirm the many proposed model relationships.

A final remark is warranted and concerned with the practical implications of this research. The findings presented here have implications for buyers and suppliers working within relationships formed after IT service outsourcing. The findings propose a set of important mechanisms or contextual factors that may be sought to be actively enforced or avoided in order for more value to be created and captured in the buyer-supplier relationship emerging in this context.

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