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Understanding outsourcing contexts through information asymmetry and capability fit

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Outsourcing is a strategic activity that has long been central to operations management research and practice. Yet, there are still many outsourcing management challenges that remain. In this article, we explore two of the outsourcing challenges that motivated this special issue and are central to the 10 articles included. To do this, we develop a theoretical model that examines how variations in capability fit and information asymmetry combine to present firms with four different outsourcing contexts. We then explain how each of the articles included in this special issue relate to our theoretical model and explore several avenues for future research.

Keywords: outsourcing; information asymmetry; capabilities; typology; operations management; operations strategy

1. Introduction

Over the past two decades, outsourcing, defined as ‘an agreement in which one company contracts out a part of their existing internal activity to another company’ (McCarthy and Anagnostou 2004, p. 68), has become an important business practice and an enduring research theme. No longer do business leaders obsess with creating large organisations that try to undertake all value adding activities and own as much of the supply chain as possible. To be competitive, firms now tend to recognise and favour the potential value in sourcing capabilities from the market place. Such capabilities provide operational benefits such as production efficiency, enhanced product and service quality, better process responsiveness and dependability, and greater product variety and process variation. Furthermore, outsourcing benefits can often be strategic in nature, including gaining novel technologies, accessing local knowledge and markets and acquiring government suasion.

Accompanying this growing consideration of outsourcing, there has been an extensive range of studies by economic, public policy, innovation and operations management scholars. These examine why firms outsource (e.g., Hitt and Ireland 1985, Quinn 1999, Quélin and Duhamel 2003, Holcomb and Hitt 2007), how outsourcing alters the boundary and value of organisations and industries (e.g., McCarthy and Anagnostou 2004), how outsourcing helps firms

to develop new products and innovate (Handfield *et al.* 1999, Silvestre and Dalcol 2009), the capabilities needed to outsource effectively (e.g., Milgrom and Roberts 1990, Levina and Ross 2003, Oh and Rhee 2008), the process of selecting suppliers (e.g., Choi and Hartley 1996, De Boer *et al.* 2001, Everaert *et al.* 2007, Huang and Keskar 2007) and collaborating with them (e.g., Liker *et al.* 1996, Rich and Hines 1997, Takeishi 2001).

Although this prior research has made many valuable contributions, there are still several important outsourcing issues that require research attention. In our call for this special issue, we highlighted the need to better understand how to design, control and measure outsourcing practices. Based on the papers included in this special issue, we suggest that there are two interrelated challenges that combine to describe four different contexts faced by firms undertaking outsourcing. The first challenge relates to information asymmetry between the two parties in an outsourcing agreement. Information asymmetry is when the parties involved in an outsourcing agreement do not have equal access to the same amount or quality of information. This makes an outsourcing transaction imbalanced and inefficient for at least one of the parties involved. Information asymmetry not only damages the outsourcing relationship in the long-run, but also disturbs the performance of the whole supply chain (Corbett *et al.* 2004). The second challenge,

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capability fit, is the matching of a buyer's needs with a supplier's offerings. The alliance strategy literature (e.g., Niederkofler 1991, Douma *et al.* 2000) and supply chain literature (Stock *et al.* 2000, Zsidisin 2003, Taps and Steger-Jensen 2007) suggest that an appropriate fit between the capabilities of two firms will yield better performance than when misfits occur. This is because outsourcing involves a buyer acquiring from suppliers bundles of resources and skills (i.e., capabilities) that are critical to the buyer's performance; and thus, the stronger the capability fit, the better the resulting outsourcing performance for both parties.

In the remainder of this introductory article, we discuss these two outsourcing challenges in greater detail and explain how variations in them combine to produce four different outsourcing contexts for firms. We propose the concept of 'outsourcing context' as a way to describe the interplay between these two outsourcing challenges and to signal the implications of the context for firms. We then introduce the articles in this special issue and highlight how they focus on the challenges and contexts in our model. We conclude by suggesting several opportunities for future research.

2. The model

An important benefit of conceptualising different outsourcing contexts in terms of key challenges is the potential this provides for the examination of the complexity involved and for the evaluation of the implications for firms. To that end, we now introduce the two challenges and the resulting contexts.

2.1. Information asymmetry

A frequent issue faced by the firms embarking on an outsourcing agreement is the lack of perfect information they have about each other's needs and offerings. This is known as information asymmetry. The information deficiency can be in a number of areas, including incomplete price and cost information for the products and services; limited or unreliable demand information for the products or services; and undisclosed strategic and innovation plans that might affect outsourcing performance. Information asymmetry is common because such information is often kept confidential to avoid competitors learning of it; but more typically buyers and suppliers avoid disclosure when possible in order to extract maximum financial benefits from the relationship in the short-term.

Prior research on information asymmetry in outsourcing has examined how this challenge impacts the

outsourcing agreement (i.e., the contract) and the outsourcing outcome (see Zhou and Ren 2010). For instance, Hasija *et al.* (2007) show that when firms face high levels of information asymmetry, the agreements that are established are lengthier and more complex, so as to help mitigate the risks associated with uncertainty and ambiguity. Akan *et al.* (2011) examine the contracts in call centre outsourcing, focusing on information asymmetry in terms of demand for the call centre service. They find that the nature of the contract significantly varies when the buyer issues the contract versus when the supplier issues a quote or tender for the contract. This leads to a significant distortion in the respective capacity planning models for both parties. Also, Ren and Zhang (2009), also studying call centres, examine how contracts vary when the buyer does not know the vendor's capacity cost or quality cost. While these two costs are often correlated in this industry, they find that the greater the information asymmetry, the greater the correlation.

From such prior research, we put forward that high information asymmetry is associated with two detrimental behaviours. First, suppliers tend to 'blind' buyers by concealing operational information such as costs and demand forecasts. Second, buyers tend to 'squeeze' suppliers to try to extract operational benefits that are often unrealistic and unsustainable. Both these behaviours escalate the contract design costs and outsourcing delivery costs, damaging the performance of both firms and the supply chain in the long term. In contrast, low information asymmetry benefits from 'enlightening' and 'developing' behaviours, where both parties are more inclined to trust each other, communicate more openly and coordinate and collaborate for mutual benefits.

2.2. Capability fit

The concept of fit is central to organisational contingency theory (Hofer 1975), in which, it is assumed that there is no one best way to design and operate an organisation – it depends! Firms should strive to fit or align with the conditions of the industrial context in which they are operating. These industry conditions can vary in terms of munificence or abundance of resources (Castrogiovanni 1991), the velocity or the rate and direction of industry change (Eisenhardt 1989, McCarthy *et al.* 2010); and the complexity or heterogeneity of the environment (Aldrich 1979). The fit between an organisation and its environment can also be based on different elements or features of the organisation including: organisational structure; type

Capability Fit High Low	Opaque Outsourcing Context Outsourcing will be operationally efficient, effective and somewhat sustainable; but its performance will be constrained due to blinding and squeezing behaviours.	Symbiotic Outsourcing Context Outsourcing will be operationally fit with good performance that is enhanced by enlightening and developing behaviors due to high levels of trust, transparency and collaboration between both parties.
	Discordant Outsourcing Context Outsourcing will be operationally unfit with bad performance that is compounded by blinding and squeezing behaviors due to limited trust, transparency and collaboration between both parties.	Inconsistent Outsourcing Context Outsourcing will be operationally inefficient, ineffective and unsustainable; but its performance will be enhanced due to sharing and collaboration
	High	Low
	Information Asymmetry	

Figure 1. Outsourcing contexts: a theoretical model.

of technology employed (Kietzmann 2009); management style; and the size of firm. As many of the papers in the special issue consider such conditions, in this article, we develop a contingency-based framework to review them and highlight this. Specifically, one dimension of our framework is the degree of fit (or the alignment) between the capability need and capability offering. As we now explain this affects both firms' performance in the outsourcing relationship.

Capabilities are derived from how firms combine, organise and work their resources to produce offerings. If the capabilities provide an offering that is differentiating and competitive, they are referred to as core capabilities (Leonard-Barton 1992); distinctive competences (Hitt and Ireland 1985), or core competencies (Hayes *et al.* 1988, Prahalad and Hamel 1990). In terms of operations, the advantage offered by capabilities can be prompted and measured using a number of interrelated operational drivers including: speed, dependability, quality, cost, flexibility and innovation (see McCarthy 2004). In our model, we suggest that capability fit is central to the performance of an outsourcing arrangement because the matching of reciprocal needs and offerings is essential to both parties achieving their outsourcing objectives. When there is a low capability fit (i.e., a misfit), an outsourcing arrangement will more likely to be

ineffective (i.e., it was the wrong thing to do); inefficient (i.e., it does not work well) and unsustainable (i.e., it will not work out in the long-run). In contrast, a high capability fit between two firms will more likely to be effective, efficient and sustainable.

We propose the concept of an 'outsourcing context', as a way to describe how variations in information asymmetry and capability fit combine to affect outsourcing. Although both these challenges of outsourcing continuously vary, we use combinations of high or low information asymmetry and high or low capability fit, so that our model is both parsimonious and bounded. The result is a typology (Figure 1) with four distinct outsourcing contexts – *opaque*, *symbiotic*, *discordant* and *inconsistent* – and associated implications for firms.

3. The work in this special issue

In this section, we summarise the articles that appear in this special issue and show how they focus on the outsourcing challenges defined in our theoretical model. To do this, we present a table (Table 1) that shows what aspect of outsourcing each article focuses on, how this focus relates to the outsourcing challenges

Table 1. Summary of the special issue articles.

Article	Outsourcing focus	Level of information asymmetry	Level of capability fit	Approach and contribution
Pehlivan, Berthon, Leyland and Chakrabarti	Innovation and the shaping of technological evolution by creative consumers	Low	High	Looks at how the iPhone has been transmuted in consumer-generated ads to show how outsourcing can be open, informal and passive in nature.
Lin, Piercy and Campbell	Outsourcing of creative capabilities in the fashion industry	High	High	Uses a case study to examine resource-based and transaction-cost tensions in creative outsourcing. Finds that there is a symbiotic-parasitic relationship between small designers and large buyers.
Kitcher, McCarthy, Turner and Ridgway	Understanding and measuring the effects of outsourcing using an example from the aerospace industry	Low	High	The development and illustration of a total factor productivity framework for measuring the effects of outsourcing.
Shishank and Dekkers	Tactical outsourcing decision for design and engineering functions	Low	High	The development of an outsourcing decision framework using a Delphi survey to identify and evaluate the importance of different decisions during the design and engineering phases of product development.
Al-Zu'bi and Tsinopoulos	Outsourcing product development using open innovation approaches and lead users	High	High	Empirical study of the cost impact of outsourcing activities to lead users relative to in house new product development.
Westphal and Sohal	Outsourcing decision models	High	High	A review and taxonomy of outsourcing decision models.
Datta and Roy	Outsourcing of high-risk and complex capabilities	High	Low	An agent-based simulation model to explore the impacts of contract type and incentive mechanism on outsourcing performance.
Plugge and Bouwman	The supply side of information technology outsourcing	Low	High	An empirical study of the link between capabilities, organisational structure and outsourcing performance.
Solakivi, Töyli and Ojala	The motives and costs of logistic outsourcing	Low	High	An empirical study finds a positive correlation between amount of logistic outsourcing and costs, and that flexibility is the capability that motivates most.
Bhattacharya, Singh and Bhakoo	A dyadic view of outsourcing multiple functions	High	High	Agency theory concepts were used to explain how two parties perceive outsourcing differently, but yet, share some commonalities about outsourcing.

of capability fit and information asymmetry, and the approach and the core contribution each article makes to research and/or practice.

4. Opportunities for future research

Based on our theoretical model and the contributions of the 10 articles that make up this special issue, we suggest that there are some potentially fruitful opportunities for future research.

First, we support a new, dynamic view of the interplay between information asymmetry and capability fit, and the associated outsourcing contexts. While all the articles in the special issue can be grounded in these challenges, there remains a dearth of research on how these outsourcing contexts evolve. That is, the challenges and contexts are unlikely to remain fixed over time, because the familiarity and experience that each party gains about the other should impact the relationship fit and transparency. This dynamic offers a number of interesting questions. For example, what conditions or mechanisms might drive an outsourcing arrangement to evolve from a discordant context to a symbiotic context, for instance, and *vice versa*? What are the timescales involved in shifting from one context to another? In practice, is it important to focus on and address both outsourcing challenges simultaneously and can they be tackled sequentially?

Second, studies that examine how the characteristics of individual managers impact outsourcing are relatively rare. While some of the papers in this issue focus on the decision-making frameworks that can be used for outsourcing; the experience, cognitive abilities and decision-making approaches of managers are rarely considered by the field. Future research, therefore, could examine such characteristics and assess their impact on the design, control and performance of outsourcing agreements. In particular, future studies could examine how different managerial characteristics are associated with each of the outsourcing contexts in our model.

Third, in terms of capability fit, one operational driver not covered by the papers in this special issue is that of sustainable outsourcing or green outsourcing. As sustainability is an increasingly important issue, and it is causally connected to other capabilities such as cost and quality (see Garetti and Taisch forthcoming), it will significantly impact the capability fit challenge. Thus, we suggest that there is need to undertake survey research that examines what firms are doing to accommodate or attain a green capability *via* outsourcing, as well as empirical theory testing

research that examines the impact of this operational driver on the outsourcing context and outsourcing performance of firms.

Fourth, there is a need to close the gap between research on outsourcing and supply chain management. Several studies on supply chain management have argued that focal firms are increasingly concentrating on strategies to enhance supply chain efficiency and/or responsiveness. However, there is an opportunity for research that investigates outsourcing contexts in relation to whole supply chain performance. More specifically, we endorse further research on how and why the outsourcing challenges (information asymmetry and capability fit) affect the ability of supply chains to achieve the desired level of efficiency (low cost) and responsiveness (high flexibility).

5. Conclusions

In this article, we explore two of the outsourcing challenges that impact the design, control and measurement of outsourcing practices: information asymmetry – the lack of perfect information they have about each other's needs and offerings; and capability fit – the extent to which suppliers can satisfy buyers needs in terms of resources and skills. We then propose the concept of 'outsourcing context' as a way to clarify the interplay between these two outsourcing challenges and the resulting implications for firms.

All articles included in this special issue break new ground in that they further advance our understanding of these challenges and the responses needed for attaining a capability fit and coping with information asymmetry. They examine these challenges from different analytical levels and perspectives (i.e., individuals, organisations and industries) and in settings that range from the fashion industry to aerospace manufacturing. The papers in this special issue also vary in that they employ a range of methodological and theoretical approaches. As outsourcing will continue to be important to both managers and researchers, it is our hope that the research in this special issue and the identified research avenues inform teaching and practice and help guide and motivate future research on the challenges of designing, controlling and measuring outsourcing practices.

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Jan Kietzmann is an assistant professor at the Beedie School of Business at Simon Fraser University. He received his PhD in 2007 from the London School of Economics. In his Innovation and Information Systems research, Jan focuses on emerging mobile technologies and how the information flows they enable impact

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