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Bridging the gaps: Packaged software implementation projects in Vietnam

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Borman, Mark, "Bridging the gaps: Packaged software implementation projects in Vietnam" (2009). *ECIS 2009 Proceedings*. 40.
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COLLABORATIVE SOURCING – THE MOTIVATION AND DESIGN OF DEMAND SIDE COMBINATIONS

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Abstract

Collaborative sourcing is defined as a group of organisations combining on the demand side as part of the outsourcing process. Based upon a synthesis of the outsourcing and collaboration literatures, this paper seeks to examine both the benefits of collaborative sourcing and the options available. A series of case studies identifies that a number of alternative collaborative sourcing modes are possible with differing motivations – based on economies of scale but moderated by other influences – intensity – ranging from simply aggregating demand at the contracting stage to establishing a separate entity to actually provide the services – focus – from IT infrastructure through to business processes – and extent – the number of partners involved and activities covered.

Keywords: outsourcing, alignment, collaboration, interorganisational systems

1 INTRODUCTION

Since its genesis the outsourcing literature has developed considerably from viewing outsourcing as a singular concept (Loh and Venkatraman, 1992a) to recognising that many different types of outsourcing are possible (Marcolin and McLellan, 1998). Variations have been identified based upon the scope of the arrangement (Sambamurthy et al, 2001), its timeframe (Lacity and Willcocks, 1998), whether one or several suppliers are involved (Currie, 1998), the type of activity concerned – for example differentiating between information technology (IT) and business process outsourcing (Dibbern et al, 2004) – its geographical location (Bergkvist and Fredriksson, 2008) and the nature of the relationship between supplier and client (Fitzgerald and Willcocks (1994). Several classifications have been proposed. Millar (1994), for example, suggested four different types of outsourcing arrangement – differentiated by purpose, inclusion and relationship. Cullen et al (2005) classified outsourcing arrangements based on scope, supplier grouping, financial scale, pricing framework, contract duration, resource ownership and commercial relationship. Willcocks et al (2007) identified alternative outsourcing models – including traditional, netsourcing and customer-supplier joint ventures. One area that the literature appears to have neglected however is the potential for collaborative sourcing – defined here as *a group of customers combining their demand* as part of the outsourcing process. While Gallivan and Oh (1999) recognise a class of outsourcing where a group of organisations come together to obtain a common service from a supplier, a review of the literature suggests that little research has been conducted on the phenomenon. An exception is the work of Seddon (2001) which examined the IT outsourcing by clusters of agencies within the Australian Federal Government – however this concluded that the approach does not work. Yet the potential benefits of collaboration in other spheres are well recognised (Smith, Carroll and Ashford, 1995) and a number of collaborative sourcing ventures have been initiated. In the UK, for example, Lloyds TSB Bank, Barclays Bank and HSBC bank have formed a joint venture for cheque processing (Roberts, 2004). As such it does not seem to be appropriate for collaborative sourcing either to be ignored or summarily dismissed as unworkable.

The remainder of the paper comprises two sections. The first reviews literature relevant to collaborative sourcing to develop a framework to better understand the potential *motivation* and identify dimensions that define the resulting *design*. As with outsourcing, successful collaborative sourcing requires a clear motivation or objective (Dibbern et al, 2005). In addition, the plethora of outsourcing options that have emerged – see earlier – suggest that it is important to clearly specify the design of the resulting collaborative sourcing. The second section presents the results of an empirical study of nine collaborative sourcing arrangements in Australia conducted to assess the usefulness of that framework.

2 THE MOTIVATION AND DESIGN OF COLLABORATIVE SOURCING

Given the absence of an established literature regarding collaborative sourcing, existing research on *outsourcing* and *collaboration* formed the twin starting points for a literature review to develop a theoretical framework for understanding the motivation for, and design of, collaborative sourcing.

A wide variety of motivations have been posited for outsourcing; including a desire to focus on core competencies (Lacity and Willcocks, 2001), a response to the actions of other organisations (Loh and Venkatraman, 1992b) and the perception that external suppliers have superior capabilities (Poppo and Zenger, 1998). Perhaps the most frequently cited reason for outsourcing however is the reduction of operational costs (Lacity and Willcocks, 1998), often through economies of scale – the production and distribution efficiencies which come with

larger size (Chandler, 1990; Dibbern et al, 2005). For traditional outsourcing benefits can accrue in circumstances where in-house production does not achieve the minimum efficient scale (Venkatesan, 1992). Collaborative sourcing introduces a *demand* side dimension to this traditionally supply side phenomenon. As a group of organisations aggregate their demand a potential supplier should become better placed to realise economies of scale in meeting it.

While outsourcing research has examined the design of outsourcing arrangements it has often done so from a *process* rather than a structural outlook (see Dibbern et al, 2005) – in particular emphasising the relative role played by contracts and relationships – and from a *customer–supplier(s)* perspective (Willcocks et al, 2007). It has not examined in any depth the possibility of, and structures for, *customers acting collaboratively* (ie *customer-customer*). As such it is necessary to turn to research on collaboration. There is a considerable body of research examining collaboration from the perspectives of *motivation, intensity and extent* (Powell et al, 1996; de Rond and Bouchikhi, 2004). A wide variety of motivations for collaboration have been proposed including scale economies (Larsson et al (1990), competence development (Hamel et al, 1989), the spreading of risk (Guglar and Dunning, 1993), increased resource utilisation (Clemons and Row, 1992), access to complementary resources (Guglar and Dunning, 1993) and customer service enhancement (Lambert and Knemeyer, 2004). In terms of intensity, Moss-Kanter (1994) suggests that cooperative arrangements range along a continuum from weak and distant to strong and close, while Lambert and Knemeyer (2004) define three types of partnership based on the level of integration between partners. Kumar and van Dissel (1996) and Thompson (1967) similarly differentiate between collaborations based on the degree of interdependency. When considering the intensity of collaboration a number of authors (Pisano, 1991, Dyer and Singh, 1998) have suggested that consideration needs to be paid to the governance structure that is put in place. Yoshino and Rangan (1995) differentiated between collaborations based on whether they involved an exchange of equity or not.

While the bulk of collaboration research has focused on partnerships between *two* organisations (Doz, 1996; Adober, 2006) there have been some studies of *multi-organisation* arrangements (Kumar and van Dissel, 1996). Authors such as Oye (1986) and Coleman (1990) have argued that collaboration becomes harder as the number of partners increases – not least because of the possibility of free riding. Others however suggest the opposite arguing that risks, for example, are better able to be dispersed as the number of partners increases (Adobor, 2006). Harrigan (1988) suggested that the key influence on the appropriate number of partners is the scope of the activities concerned. Not only can there be variation with regard to the number of activities included (see for example Mariti and Smiley, 1983) but also with regard to its centrality or contribution to an organisation. Weill and Broadbent (1998) suggested that from an IT perspective a separation can be made between infrastructure and applications. It is also well recognised that beyond the IT itself are the essential business processes of an organisation (see for example Davenport, 1993).

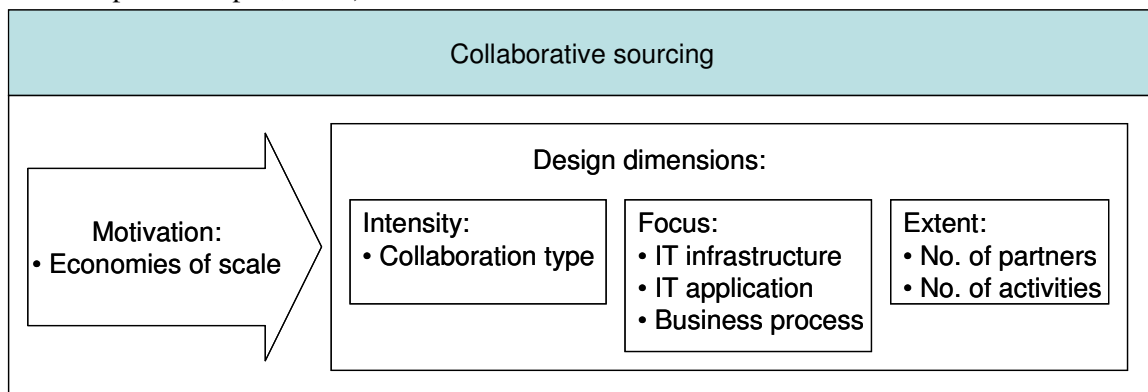


Figure 1: Collaborative sourcing: Motivation and design

Synthesising the outsourcing and collaboration literatures suggests that empirical research would be useful to determine whether economies of scale – a common driver for both outsourcing and collaboration – is indeed the motivation behind collaborative sourcing and identify what form that collaboration takes – in terms of its intensity, focus and extent (see Figure 1).

3 METHODOLOGY

Given that little research has been conducted to understand the phenomenon of collaborative sourcing a qualitative approach was determined to be appropriate (Benbasat et al, 1987; Straus and Corbin, 1990). The research was primarily outcome rather than process oriented – seeking to identify the motivation for, and design of, collaborative sourcing initiatives rather than the process of making those decisions (Patton, 2002). A multi-case design was selected with collaborative sourcing arrangements selected from both the private and public sectors in Australia¹. A multi-case approach, it was felt, would provide for more robust analytical generalization with regard both to the appropriateness of the motivation and design constructs and – in the case of the latter – the specific choices to be made when constructing a collaborative sourcing arrangement (Yin, 1984). For each arrangement considered interviews were conducted with more than one participant to capture any variation in perspectives. As Table 1 illustrates the provider perspective was included where possible. Interviews were between one and two hours in duration and a semi-structured interview protocol was followed. While the underlying rationale was purposeful it was deliberately non-directive so as not to preclude the emergence of factors and influences not previously considered (Patton, 2002). As such it is in line with the methodology presented by Eisenhardt (1989).

Collaborative sourcing arrangement	Sector	Interviewees
Case 1	Public	Group General Manager Corporate Services (Partner A) [GGMS-A-1]; Director Finance and Administration (Partner B) (DFA-B-1)
Case 2	Private	General Manager (Partner A) [GM-A-2], Finance Director (Partner A) [FD-A-2]
Case 3	Private	Managing Director (Partner A) [MD-A-3]; Corporate Services Director (Partner B) [CSD-B-3]
Case 4	Private	General Manager (Partner A, B, C)[GM-A-4, GM-B-4, GM-C-4]; General Manager (Provider) [GM-P-4]
Case 5	Private	Managing Director (Partner A) [MD-A-5], General Manager (Partner B) [GM-B-5]; Managing Director (Provider) [MD-P-5]
Case 6	Private	Director Finance (Partner A) [DF-A-6]; Director Business Partnerships (Partner B) [DBP-B-6]; Director Business Enterprises (Provider) [DBE-P-6]
Case 7	Private / Public	Director Finance (Partner A) [DF-A-7]; General Manager Corporate Services (Partner B) [GMCS-B-7]; General Manager Australia (provider) [GMA-P-7]
Case 8	Private	General Manager (Partner A) [GM-A-8]; Finance Manager (Partner B) [FM-B-8]; Managing Director (Provider) [MD-P-8];
Case 9	Public	Director General (Partner A) [DG-A-9]; Deputy Director General (Partner B) [DDG-B-9]; Managing Director (Provider) [MD-P-9]; Chief Information Officer (Provider) [CIO-P-9]

Table 1: Interviewees per case

¹ Australia is recognised as a country where outsourcing is prevalent (see for example Seddon, 2001 and Willcocks et al)

With regard to analysis, data was first reviewed and coded in terms of its relationship either to the motivation for, or design of, the collaborative sourcing initiative – an approach in accord with the recommendations of Miles and Huberman (1994).

4 RESULTS

As highlighted by Figure 2 the empirical research found that collaborative sourcing was more complex than anticipated – in that there is neither a single motivation nor a single collaborative design. Each aspect – motivation, intensity, focus and extent – will be elaborated on below.

Motivation		Intensity	Focus			Extent	
Economies of scale	Access	Coat-tail	IT infrastructure	IT application	Business process	Number of partners 1 .. n	Number of activities 1 .. n
	Flexibility	Aggregate demand					
	Management resources	Joint management					
	Expertise	Joint venture					
	Revenue	Joint operation					
	Politics / Public relations						

Figure 2: Collaborative sourcing – motivations and designs

4.1 Motivation

While economies of scale was cited as a motivation in all cases it was typically moderated by other factors.

- Economies of scale

“The main goal is economy of scale” GGMS-A-1

“simply by consolidating the economies of scale, we provided, in a lot of cases, services for three agencies for the price of two. So we achieved – you know, we just spoke to software vendors and other vendors and said, look, if you want to play with us into the future, it’ll cost you a 30 per cent reduction in cost” CIO-P-9

- Access

In a number of cases a goal was to access technology used by larger organisations that could not be afforded individually.

“we simply can not afford some of the technology on our own” MD-A-3

“all have similar needs – about 90% fit – and can pretty much assume that if it satisfies the larger ones it will be sufficient to meet our needs” GM-C-4

- Flexibility

Flexibility was not so much a *pure* goal but seen as an influence on how far some organisations would go down the collaboration path.

“who you link up with limits what you can do in the future .. makes you a bit dependent”
GM-A-2

“you can only standardise in certain things and only so far” DFA-B1

- Management resources

For a number of organisations a motivation was either to free up their own management resources to focus on other activities or to allow the development of specialist management skills – such as contract or supplier management – that could not be justified individually.

“maintain skills sets that can not afford individually” DF-A-7

“don’t have the competencies .. nor did we want those competencies since it was not a critical function” GM-A-2

“time you need to manage that relationship, how much time and how much effort and how much resource do you have to manage those relationships.” DBP-B-6

- Expertise

Collaboration was seen as providing access to expertise – typically developed through the past experiences of one of the partners – that would be otherwise unavailable and that could make a significant contribution to improving activities.

“The IP [intellectual property] that drives the business comes out of [supplier] – the delivery capability, the management experience, the technical expertise and so on” DF-A-7

“we saw the need for a vehicle that allowed [organisations] to work with somebody else who’s got those expertise who’s looked at these things before, can bring in the processes and common systems and common sort of programs” DBP-B-6

- Revenue

Collaboration could help generate a new revenue stream such that services could be offered for sale to additional organisations beyond the boundaries of the collaboration.

“turn it into a revenue stream rather than just trying to manage your costs and minimise your costs ..” GMA-P-7

“.. if you’re making a couple of cents a transaction and you get a big customer and they’re doing, you know, 20 - 30 million transactions a year, that’s where you make your money”
GM-A-8

- Politics / Public relations

Collaboration is seen as more acceptable than outsourcing.

“cost savings were demanded but outsourcing was off the table” DG-A-9

“jointly owned intermediary makes it more palatable – retain control and not direct with the private sector” DBP-B-6

4.2 Intensity

The research found that there was not a single design of collaborative sourcing but various alternatives which varied with regard to the intensity of the collaboration undertaken.

- Coat-tail

Where an organisation rides along on the coat-tail of another taking whatever option or solution that organisation chooses benefiting from the economies of scale but without any input or opportunity for modification. It is questionable whether such an option truly represents collaboration though in one of the cases examined there was a requirements that the coat-tailing organisation invest in the vehicle established for the purpose.

“assumption is if it suits us – the largest – it will suit them and they can come along and get the savings but we are not going to compromise our requirements” GM-A-2

“other organisations but we have not really taken them into account in the requirements” GGMS-A-1

- Aggregate demand

Organisations aggregate their demand and requirements at the tender stage but enter into separate contracts and operations with the selected supplier.

“The host agreements are all separate .. So this is just purchasing power.. What we’re trying to do is to get as much of the cost benefit without selling your soul.. We negotiate together, but at the end of the day we are separate entities. We are separate businesses, with the same supplier. That works for us.” MD-A-3

- Joint management

Organisations set up a jointly owned intermediary that negotiates on their behalf with suppliers and then manages the relationship with the selected supplier who provides a common service to all of them.

“Effectively what we’ve done is we’ve put a middle man in there to look after our interests.. they manage the relationship with [the external provider]. It suits [the external provider] to deal with one entity and one contract” GM-B-4

- Joint venture

Organisations enter into a joint venture with a party from outside the industry who is perceived to have the skill sets necessary to improve the activities of interest.

“they have the skills sets, the reference sites, the experience to be able to make it happen .. we have the contacts to provide the opportunity” DBP-B-6

“they have done this before successfully .. we haven’t .. do not want to see it fall over” GMCS-B-7

- Joint operation

A group of organisations establish their own service provider to provide a common service to all of them.

“It became evident in our normal cooperative effort that we needed to be combining our computer bureaus...” MD-A-5

It should be recognised that the options described are somewhat of a *simplification*. Within each category of collaboration there were variations with respect to the structure of the collaborative vehicle – in terms of the presence, and significance, of the equity invested – and the broader governance arrangements. With the exception of one of the coat-tail arrangements all of the collaboration arrangements involved the establishment of separate legal entities, companies, in which the partners purchase equity. However the level of that investment varied from the company being nominal – more-or-less in name only – to it being significant in its own right.

“no resources attached to it .. really just a vehicle” MD-A-3

With regard to governance, the structure put in place influenced the rights and responsibilities – potentially limiting input of some participants.

“So you’ve got to think deliberately about that, how the governance is designed, who should be involved and how” DF-A-7

In addition that structure was often quite complex containing multiple, nested agreements.

“When you create a structure like that, you need a lot of things to make things pump around here ... so you’ll see these services, sub-contracts and partnership agreements, second services contracts, service agreements, resourcing agreement.” DBP-B-6

4.3 Focus

The cases suggested that the activities collaborative sourcing has been engaged in for vary with regard to how tightly they are tied to the specific operations of the organisations involved – with collaboration identified at the IT infrastructure, IT application and business process levels.

- IT infrastructure

At perhaps the most basic level is largely generic hardware, operating software and services

“All we do is put the architecture and infrastructure in place” MD-P-5

- IT application

Here standard or industry based applications are provided and supported.

“it is [the application] opaque, it’s chugging away, and it has no bearing on the business.” MD-A-5

- Business process

At the business process level the collaborative sourcing extends to the actual operation of an activity such as payroll processing, accounts payable etc. In many cases those activities are transactional in nature – high volume, standard activities requiring limited decision making.

“its transactional, its process-driven and we’re good on process.” GMCS-B-7

“it’s about standardisation and it’s about being able to add value to a process. So unless you can standardise it, you can’t get cost savings.” GM-A-2

However in some cases the activities concerned extended to those that were more ad hoc, unique and requiring of analytical and decision making capabilities. The inclusion of such “expert” services was seen as a means of enabling the complete removal of functions from businesses.

“I don’t think you could have the one without the other [transaction and expert services] because the whole point .. is to take those functions away from the agencies. If you’re going

to separate them out .. you're not going to get the savings, so you really need to group them together" FD-A-2

While there is normally thought to be a hierarchy between infrastructure, applications and processes it was not found to be the case that a higher level of collaboration required that lower levels were included – it was possible to have collaborative sourcing for business processes but not applications or infrastructure.

"they have retained ownership of the underlying ERP [Enterprise Resource Planning] platform and we essentially pay for some of the access to the technology" DBE-P-6

4.4 Extent

The research suggested that collaborative sourcing arrangements varied with regard to their extent both in terms of the number of partners involved and the number of activities covered. However there did appear to be a trade-off between the two with collaborations with a larger number of partners covering a narrower range of activities and vice versa .

- Number of partners

The number of partners varied considerably – from three to over 50.

"it's the size of the agencies and the number of them. More than three, initially, would have been messier than it was" MD-P-9

"Because we're a private company, I think it's capped by you can only have 50 shareholders. So 50 shareholders. So we've just changed them and we're going to be a public unlisted company, so that we can bring those other people in as shareholders." MD-A-5

As alluded to earlier, there could also be differing levels of partner involvement – at the most basic level between those actively involved in driving and running the venture and those serving simply as customers.

"varies with regard to how involved they want to be .. I am involved a couple of days a month on the board .. others take much more of a backseat" GM-B-5

"now focused not on more partners but on more customers" FM-B-8

- Number of activities

A difficulty in comparing the number of activities provided is that it is difficult to ensure that apples are being compared with apples – names of activities and what is included vary across the cases. However it is clear that at the highest level there are considerable variations in terms of the range of activities with some arrangements being focused, for example, on a single application or process area and others having a much larger remit.

"in terms of transaction management, it doesn't matter if you're doing the payroll or paying bills or moving assets, the concept is make sure you've got low decision making .. basically, it's a formula, it's getting accuracy the first time, and so what we did is actually combined all the transaction areas and just called it transactional services" FD-A-2

"We're very niche in terms of the services that we provide.. very focused .. know what we are good at and want to focus on" GM-P-4

5 DISCUSSION

While clearly collaborative sourcing is more complex than originally envisaged (there is neither a single motivation nor design), the research suggests that the framework proposed remains useful with the dimensions capturing variations and facilitating a classification of collaborations.

While in all cases economies of scale is a motivation it is not always the only one and often appears to be moderated by other factors. In terms of the focus of the collaboration there is considerable variation. Furthermore there does not seem to be a simple hierarchical progression – from infrastructure through applications to business processes. With extent however there does appear to be something of a trade-off between the number of partners and activities – or the breadth and depth of the arrangement.

Combining the different elements of the framework it is possible to discern three distinct approaches to collaborative sourcing:

1. So long as I do not have to change [Cases: 1, 2, 3]

While such organisations join with others to realise economies of scale the emphasis remains primarily fixed at the individual level and ensuring individual requirements are not compromised. “Collaborations” are typically narrow in terms of the number of partners but may cover a variety of activities and are focused on the provision of “as is” services.

2. Better in this together [Cases: 4, 5]

Organisations recognise the benefits of sharing management resources as well as those of economies of scale. The focus of collaborations is typically broad in terms of the number of partners but tightly focused and related to infrastructure. The emphasis remains on the provision of services “as is”.

3. Grab a new opportunity [Cases: 6, 7, 8, 9]

Organisations see an opportunity not only for economies of scale but also to develop new revenue streams through the provision of services to others. The collaboration may relate to infrastructure, applications or processes – but is typically very specific. There is often a trade-off between the number of partners and the number of activities. The emphasis is on improving the current way of doing things – and if the organisations do not have the expertise amongst themselves to do this they will bring in an external partner.

While the different groups have been described from the perspective of making their own choices, the research suggests that this might not always be the case with politics or public relations determining the path taken. There is also some evidence of collaborations in Group 2 developing over time to also provide services to customers – but in contrast to Group 3 on a “take it or leave it” basis similar to Group 1.

It should be noted though that the framework and classification is a simplification of reality. Many of the dimensions have *additional* complexity embedded within them. For example regarding business processes they are not all vanilla – with interviewees making the distinction between transaction and expert types. With partners, there would also seem to be differing levels of involvement – for example there are those that take an active role, those that are more passive and those that are simply customers.

Future research would be particularly useful in three directions. Firstly to examine in more detail the variations and complexities of the collaborative sourcing arrangements. Secondly to attempt to determine which arrangements are most likely to be successful – and in what

circumstances. Third to examine the arrangements over time – do they evolve as partners gain in experience and understanding? Do organizations get locked in to particular solutions and partners with alternatives becoming closed off over time?

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