Collaborative IT Outsourcing in the Public Sector: A Case Analysis of Standard Business Reporting in Australia

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Abstract

This study provides a case analysis of a successful collaborative information technology outsourcing arrangement in a public sector setting. An endogenous framework depicting four key factors (motivation, decision-making, outcomes, and relationship management) was developed and used to examine a collaboration between the Australian Government (Treasury and Taxation Office) and Fujitsu to develop Australia's Standard Business Reporting infrastructure. Document analysis and interviews with business and technical executives of both parties provided insights that highlight a shift from cost-focused outsourcing initiatives toward more mutually beneficial partnerships focused on co-created value.

Keywords

Collaborative IT outsourcing, public sector, government, case study, Australia

INTRODUCTION

Outsourcing as a strategy has received renewed attention within the public sector since the global financial crisis. The latest "Government at a Glance Report" (OECD 2013) reveals that while developed economies have been reducing their expenditure on goods and services since 2009, almost all of these reductions are related to the direct purchase of labor, with expenditure on outsourcing actually increasing as a percentage of GDP on average among OECD nations over this same period. In Australia, the National Commission of Audit's (NCOA) report has recognized the importance of outsourcing for improved productivity of the Australian public service. The report argues, among other things, for a more strategic and professional approach to procurement and contract management (NCOA 2014). The NCOA report also highlights the need for greater private and public sector collaboration in support of significant initiatives, such as the redevelopment of the Australian Government's payments system.

This recognition of the importance of a more collaborative approach to information technology outsourcing (ITO) within the public sector parallels a similar shift in the mainstream ITO literature. Originally framed as a cost-saving instrument that allowed firms to focus on their core business (Lacity and Willcocks 1998), the emphasis of much of the contemporary ITO literature has moved from an early transaction cost perspective to focus more on the relational aspects of outsourcing (Lee and Kim 2005). The change reflects a growing body of evidence that recognizes that the success of an ITO partnership is not just about technical proficiency, but also the strategic and cultural fit of the partners (Keating et al. 2013). The shift also reflects the reality that even in relatively simple outsourcing arrangements, firms need to share sensitive information and often adapt their business processes in order to facilitate successful collaboration.

To date, however, there has been a scarcity of research exploring the requirements for effective collaborative ITO within the public sector. One notable exception, Yu (2013), highlights that more collaborative approaches to technology outsourcing represents a significant challenge for government, as they must find the right balance between trust and control. The importance of collaboration was also a theme in a recent article that examined the development and deployment of a system in support of the Australian Government's contracted employment services program (Wilkin et al. 2013). The key finding of this second study was to confirm the importance of both formal and informal governance to the successful execution of a public-private partnership. This work also calls for more research exploring the dynamics of effective engagement within such settings.

This study adds to this emerging body of literature by presenting an in-depth investigation of collaborative ITO within a public sector context. In particular, we adapt Lacity et al.'s (2011a) ITO framework to present a case study of how the Australian Government collaborated with Fujitsu to develop the Standard Business Reporting (SBR) infrastructure. The paper is structured as follows. The next two sections introduce the conceptual background and propose our research framework. Subsequent sections explain the chosen methods and the analyses of the case data, followed by a discussion of the research findings and implications.

CONCEPTUAL BACKGROUND

Considerable attention has been given to the study of ITO in the years since Kodak outsourced its IT functions to IBM in 1989. The evolution of our understanding of ITO can be understood in terms of clients and service providers shifting from a "you do this for me" to a "let us do this together" view. This has been mirrored by a shift in ITO from contract-based arrangements to partnership-based relationships (Lee 2001). This shift has largely been driven by the pursuit of economies of scale and expertise, maximizing business impacts, and seeking commercial exploitation (Di Romauldo and Gurbaxani 1998). Furthermore, the rapid development of business practices and technological skills in the last 30 years has urged ITO to undergo many changes, from technology-centric to business-centric, and more recently, to industry-centric (Currie and Seltsikas 2001). In line with the trend, clients request more operational flexibility and innovation in their ITO strategies, while service providers seek to achieve sustainable high-margin returns. Not surprisingly, as in the dialectic prisoner's dilemma, the result has been a migration, over time, toward a collaborative "win-win" approach to ITO (Krishnamurthy et al. 2009).

Known variously as collaborative outsourcing (Linder et al. 2002), strategic partnering (Willcocks and Kern 1998), and relational sourcing (Belavina and Girotra 2012); this approach to outsourcing focuses on understanding the conditions that contribute to effective long-term outsourced partnerships. Two common themes have emerged in much of the collaborative ITO literature to date. The first focuses on decision-making factors, which emphasize long-term strategic motivations (Lacity and Willcocks 2001), unique transaction attributes (Ang and Straub 1998), and individual characteristics such as trust and experience (Babar et al. 2007). The second theme focuses on relationship management, with research focused on knowledge transfer (Teo and Bhattacherjee 2014) and the type of contractual arrangement (Willcocks and Choi 1995).

In practical terms, however, the efficacy of this prior research is undermined by inconsistent results. For example, Jain and Thietart (2013) contend that existing theoretical perspectives used in the study of ITO, such as transaction cost economics and the resource-based view of the firm, may not be suitable for studying anything but the most simplistic forms of outsourcing. In response, Lacity et al. (2010) have called for the development of endogenous theories of ITO. This study responds by examining collaborative ITO within the public sector, which Campbell (2013) argues is a unique research setting deserving of special theoretical treatment.

To address this challenge, our study adapts an ITO framework proposed by Lacity et al. (2010) and expanded upon by Lacity et al. (2011a). This framework was based on an analysis and synthesis of 164 empirical ITO articles over the last 20 years. While their study does not explicitly distinguish between public and private sector organizations, their discussion of boundary conditions highlights that distinctiveness of context explains anomalies in 17% of the studies within their sample. Interestingly, as an example, Lacity et al. (2011a) use differences in the treatment of asset specificity and uncertainty between the private and public sectors as an example of this boundary condition; the authors cite Miranda and Kim's (2006) work, which demonstrates how resource challenges within the public sector result in outsourcing decisions that are inconsistent with theorizing in private sector settings.

RESEARCH FRAMEWORK

Lacity et al. (2011a) identify nine distinct constructs that impact on the efficacy of an ITO arrangement. These constructs were identified as having the greatest influence on ITO decisions and/or ITO outcomes. Our framework attempts to build on this work to offer a more complete understanding of *why* organizations choose a collaborative ITO partnership, *how* they make decisions and manage collaborative partnerships, and *what*

outcomes can be achieved by such partnerships. In adapting the Lacity et al. (2011a) framework, our study seeks to understand how relationship management strategies impact the central proposition—client motivations drive their outsourcing decision-making processes, and ultimately impact the degree of satisfaction with ITO outcomes. Our framework differs in the way that we model relationship management as influencing every aspect of the outsourcing collaboration, rather than as a discrete consideration or stage in an outsourcing relationship.

Our adaptation of the Lacity et al. (2011a) framework was informed by a hermeneutic review (Boell and Cecez-Kecmanovic 2014) of the ITO literature. This approach differs from a traditional literature review in that it focuses on a more selective search that is highly relevant rather than comprehensive. Using a sample of four comprehensive prior reviews as the starting point (see Table 1), our study extracted a checklist of the most studied ITO factors and practices. The factors and practices that were common across all four reviews were considered to be the most salient and were thus selected for inclusion in our framework under a related construct (see Figure 1). Each of these key factors and practices will now be discussed in more detail as they relate to the four main constructs of our framework.
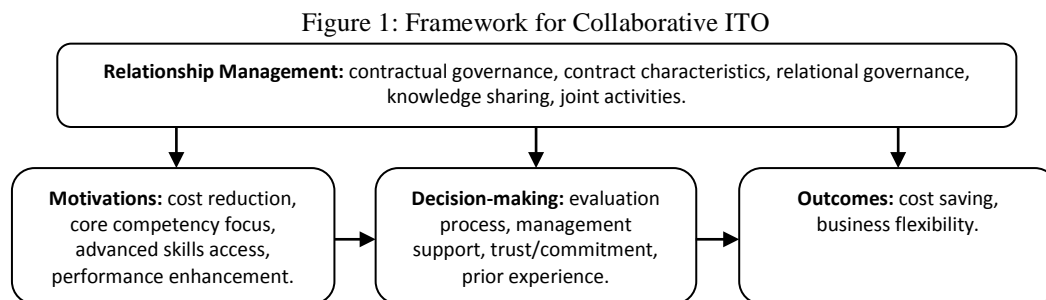
Figure 1: Framework for Collaborative ITO

Relationship Management: contractual governance, contract characteristics, relational governance, knowledge sharing, joint activities.

Motivations: cost reduction, core competency focus, advanced skills access, performance enhancement.

Decision-making: evaluation process, management support, trust/commitment, prior experience.

Outcomes: cost saving, business flexibility.

Table 1: Hermeneutic Review of the ITO Literature

Authors	Sample size	Descriptions
Dibbern et al. (2004)	84 ITO articles	Addresses the immense diversity of research on IT outsourcing by developing a conceptual framework to categorize the literature.
Mahnke et al. (2005)	19 ITO articles	Conveys a picture of the past research, the present findings, and the future application of ITO.
Lacity et al. (2010)	164 empirical ITO articles	Investigates the empirical literature's findings about ITO decisions and outcomes, as well as the gaps in knowledge to consider in the future.
Lacity et al. (2011b)	87 BPO articles	Interrogates the findings of prior research on business process outsourcing (BPO) decisions and outcomes, comparing these observations with the ITO literature.

Motivations

Motivations are factors that trigger organizations to consider outsourcing IT functions (Dibbern et al. 2012). The literature reviews commonly report four major ITO motivations that drive ITO decisions: cost reduction, core competency focus, advanced skills access, and business performance enhancement. *Cost reduction*, the most frequently examined motivation, consists of the concerns about the balance between transaction and production costs internally and externally (Ang and Straub 1998). *Core competency focus* means clients outsource non-core activities (e.g., IT functions) in order to save resources for core capabilities (e.g., business activities) (Jain and Thietart 2013). Findings on core competency suggest that clients outsource IT functions to pursue *advanced skills access* and *business performance enhancement* (McLellan et al. 1995). According to Lacity et al. (2010), ITO researchers have found strong empirical support of what drives most ITO decisions; it is the desire to reduce costs on what is viewed as a non-core IT activity that is better provided by suppliers with superior skills.

Decision-Making

Decision-making is the organizational consideration of which alternative outsourcing arrangements are the most appropriate (Dibbern et al. 2004). Currie (1998) briefly categorizes five types of outsourcing arrangements: insourcing, total outsourcing, selective outsourcing, multiple outsourcing, and strategic alliance sourcing/partnering. The literature reviews summarize four major factors that strongly influence ITO decisions. *Evaluation process* involves mechanisms for assessing and selecting partners. For example, organizations can evaluate outsourcing against in-house options through a tender or bidding process (Willcocks et al. 1996). *Management support* refers to the client offering leadership, support, and commitment to outsourcing, which have been tested as important factors for ITO decision-making (Lacity et al. 2011a). Furthermore, studies have empirically shown that *trust* is positively related to a close relationship, while *prior experience* is the reason why parties target trusted partners rather than opportunistic ones (Gefen et al. 2008).

Outcomes

ITO outcomes deal with the wider performance and competitive implications of outsourcing practices (Mahnke et al. 2004). In addition to the desire for *cost-savings*, Dibbern et al. (2004) summarize additional ITO outcomes as the experiences, lessons learned, and implications that parties have gained from an ITO relationship. Although the criteria used to evaluate ITO outcomes vary in different studies, researchers seem to agree that the measures of satisfaction with an ITO relationship are gradually evolving from simple *cost savings* to *business flexibility* and responsiveness (Teo and Bhattacherjee 2014).

Relationship Management

Relationship management refers to the actions that can establish, grow, and strengthen the client-provider relationship (Dibbern et al. 2004). Relationship mechanisms are most frequently studied in two aspects: contractual governance and relational governance. *Contractual governance* is the legal, written agreement between client and provider organizations (Lacity et al. 2010), which formally defines contract detail, contract length, and contract size, etc. However, organizations have recognized that it is necessary to seek more flexible relationship-management mechanisms to overcome the limitations of formal contracts. *Relational governance* consists of informal control mechanisms to maximize mutual benefits by minimizing the differences between client and provider preferences (Choudhury and Sabherwal 2003). Findings of all four reviews exhibit a consensus view that *knowledge sharing* and *joint activities* are the most widely cited characteristics for effective relational governance. Knowledge sharing is the degree to which client and provider organizations effectively exchange knowledge (Lacity et al. 2011a). *Joint activities*, such as joint meetings, are the actions that facilitate the parties developing and contributing to a new joint identity.

Within our framework, we consider that relationship-management activities, while they are important in themselves, have the potential to impact motivation, decision-making, and outcomes. For instance, firms that adopt a collaborative approach to outsourcing would be motivated to work with suppliers who not only have the competencies and skills to deliver cost savings, but also have a willingness to share knowledge and participate in joint activities. Likewise, this would also be reflected in the nature of decision-making, where a trustworthy and committed supplier with a track record of experience, for example, may be subject to greater latitude and a different governance approach than others. This is also true in relation to the evaluation of outcomes within a collaborative approach, where an emphasis on cost savings could be replaced by a stronger focus on cost sharing.

RESEARCH DESIGN AND METHOD

To examine the applicability of our framework within the public sector context, we undertook a case study of the partnership between the Australian Government and Fujitsu that facilitated the development of the SBR infrastructure design and implementation. The case was chosen because (1) it was a large-scale IT outsourcing arrangement that required significant collaboration by both parties; (2) it was an ongoing program that could offer first-hand information and observations; (3) many of the outsourcing program documents were open to the public; and (4), the major decision-makers were willing to participate. Taken together, these conditions meet Eisenhardt's (1989) requirements for a valid induction of our framework.

The focus of the case analysis included both organizational decision-making and the outsourcing relationship between client and provider organizations. Data collection was primarily from interviews with key decision-makers and supplemented by secondary sources. The interviews were face-to-face and semi-structured, following a defined protocol that focused on gathering data on the key factors and practices identified within our framework. The interviewees included both business executives and IT managers to ensure a comprehensive

view of the outsourcing relationship. All interviews were recorded and transcribed before analysing. The open-ended questions encouraged interviewees to provide their own experiences and allowed them to talk about critical issues related to the SBR process. The codes I1, I2, and so on were used for interviewees rather than their real names. Furthermore, several hundred pages of reports and web documents pertaining to SBR in Australia were collected (see the Appendix for a list of the main documentary sources). These documents provided both contextual background information for the SBR program and more specific information about SBR's development. Table 2 shows details of the data collection methods.

Data was analyzed by using open-coding and tabulation processes (Miles and Huberman 1994) and by using the research framework in Figure 1 as a guide. Additional themes, which will be discussed in the next section of this paper, emerged around this framework in the course of the data analysis.

Table 2: Data Collection Methods

Methods	Descriptions
Interviews	Four interviews: program leader from the Australian Taxation Office; original program leader from Treasury; IT architect at ATO; and the chief systems architect from Fujitsu.
Document analyses	Related program and organization information: annual reports, guidance notes, option papers, proposals, and web pages.

CASE ANALYSIS AND FINDINGS

The SBR program is an Australian Government initiative, intended to reduce the business-to-government reporting burden. The program streamlines business-to-government reporting through SBR infrastructure to save time and money for businesses. Development of the SBR infrastructure was initially led by the Australian Treasury from 2006 to 2012, with responsibilities transferred to the Australian Tax Office (ATO) in 2013. The SBR program consists of three major segments: taxonomy design, infrastructure development, and marketing. The Government dominates taxonomy design because it is the core of SBR and needs to be fully compatible with the Government's existing processes and the legislative environment. Infrastructure development is outsourced to large vendors to exploit their resource advantages and innovation capabilities, while marketing is outsourced to small to medium-sized vendors because they have a wide customer base.

For the infrastructure development, the Australian Government entered into a collaborative outsourcing relationship with Fujitsu, a multinational IT equipment and services company headquartered in Tokyo. Fujitsu is the second-largest IT service provider worldwide measured by revenue, with more than 5,000 employees in the Oceania area alone. Fujitsu began participating in the SBR program in 2008, taking responsibility for the design and development of an application programming interface (API) that formed the backbone of the SBR infrastructure. This infrastructure is critical to engaging other operators and developers to build SBR-enabled applications. Fujitsu's development team collaborated extensively with the Government during the program life cycle and still maintains close ties. Fujitsu and the Government's interests are intertwined, collaborating to obtain mutual benefits and to share rewards and risks. Indeed, Fujitsu's revenue from their involvement in the SBR project is tied to the API's adoption rate. This case analysis explored the nature of this partnership by using our framework for collaborative ITO (Figure 1).

Motivations: A Focus on Core Competency and Advanced Resources

The Government had several reasons for forming an outsourcing partnership with Fujitsu. The documents and interviews indicated that the two most important motivations related to collaborative ITO for the Australian Government were *core competency focus* and *advanced skills access*. These motivations came from a need to stay focused on the SBR taxonomy design by letting an external, experienced service provider handle the infrastructure development. This allowed the Government to reduce extra workload and complexity. Fujitsu had the core competency and advanced skills and had worked with the Government on many large projects, such as the electronic election counting system. In other words, they had developed relational equity. As such, Fujitsu were identified as an ideal partner for the SBR infrastructure development. In return, the Government gave Fujitsu full access to the SBR taxonomy and knowledge sets.

Both the Australian Government and Fujitsu had unique capabilities and knowledge that the other did not have but aspired to gain. Fujitsu had developed an advanced platform for application developing and data sharing, which would support the Australian Government in launching SBR taxonomies. On the other hand, Fujitsu was attracted by the Australian Government's power to influence the market through regulation and establishment of standards. This represented an enormous market opportunity. As reflected in I2's comments:

> *"Fujitsu's capability in that particular work is well-recognized across the world, where they have been working with the XBRL[1] for many years. Yet, the number of XBRL processing or mapping or management tools in this country was zero. [...] So Fujitsu got the contract to develop it, specifically for the Australian taxonomies."*

Also, I4 added:

> *"We could get sales of our software through [the Government]. We also expected to get an intangible benefit, which is the press stage [that has] been seen as the major XBRL provider for the Government. [...] They (the Government) give us an opportunity to meet with other players. So other [businesses] can come out of it."*

Surprisingly, cost reduction, which is the most frequently cited ITO motivation in the extant literature, was not mentioned in any of the documents or interviews. This finding suggests that the relationship emphasis in collaborative ITO increases the importance of non-cost considerations.

Decision-Making: Evaluation, Support, and Trust

The case analysis shows that the Australian Government's decision to cooperate with Fujitsu was based on three main factors: thorough evaluation, top management support, and trust. To support the selection of the ITO partner, the Australian Government established a two-step process to evaluate potential partners. First, they identified a small number of potential partners—CoreFiling, UBmatrix, and Fujitsu—who had all worked with the Australian Government in the past; these potential partners also had been identified as having the requisite competencies and skills to realize the project aims. The potential partners were invited to attend a series of meetings to obtain information on the SBR infrastructure design and implementation requirements. Second, the Australian Government conducted a selective tender, and each of the providers submitted a solution based on their existing products and capabilities. The proposed designs were then subject to negotiation and elaboration between the Australian Government and the potential service providers. After a one-year evaluation process, the Fujitsu specification was identified as the preferred solution.

Fujitsu's top management support was especially important in the early stage of forming the partnership. In addition to agreeing to let Fujitsu produce the SBR infrastructure, the Australian Government also collaborated with the supplier to create an initial marketplace for the SBR infrastructure by bringing together the business and developer communities. In addition to the obvious commercial benefits, this marketplace also helped improve the quality of the SBR infrastructure by ensuring that the API tool was aligned to the expectations of the user communities. The commitment of both parties beyond the basic buyer-supplier relationship was identified as critical to the decision-making process. For instance, according to I1 and I2:

> *"It's got to be an absolute relationship, particularly in the early days when we were trying to get them across the line. We have to give them as much support as possible."(I1)*

> *"The Government needs to support the relationship. The Government needs to continue working with other communities to ensure the taxonomy remains a valuable tool to let everybody see SBR has its benefits for business."(I2)*

Inter-organizational trust was also a vital factor in the decision to choose Fujitsu as the partner; this is because it was considered easier to build on an existing successful relationship than to create a new relationship from scratch. The Australian Government had worked closely with Fujitsu on electronic voting systems, which contributed to the close ties between the two parties. Importantly, this inter-organizational trust was not only based on technical proficiency but also on inter-personal relationships among key individuals. For example, Fujitsu's chief systems architect believed that the Australian Government chose Fujitsu not just because it is a leading XBRL service provider but also because the company had vast knowledge of the financial reporting system and because he had personally worked with and had a close relationship with the banking regulators.

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[1] XBRL = eXtensible Business Reporting Language, SBR's underlying, computer readable language.

Outcomes: A Move to Value Co-Creation

A distinguishing feature of the collaborative approach to ITO is a shift in the focus from cost-saving to value co-creation. According to the interviews, both the Australian Government and Fujitsu were committed to creating a unique value proposition for potential users, whereby the Australian Government could realize improved productivity, and Fujitsu could explore new market opportunities. In order to achieve this outcome, a high adoption rate was needed, which necessitated strong relationship management strategies. As I2 said:

> *"The value of the Government to the software industry is very strong. If we cannot get them (the software companies) to pick up new regulations, all [of] their businesses will be noncompliant. In the meantime, software providers have a vital place in our economy. If we took them out, we would be decades behind where we are today."*

Both the Australian Government and Fujitsu obtained what they wanted from the partnership. The Australian Government gained SBR infrastructure from Fujitsu to operate the SBR taxonomy, while Fujitsu got support from the Government to establish the marketplace for the infrastructure. This establishment contributed to sales of its products from which Fujitsu benefited in the form of a share of the license fee for use of the API.

Relationship Management: An Emphasis on Relational Governance

Although a contract was used to protect their basic interests, neither of the parties stressed the importance of contractual governance. Both the Australian Government and Fujitsu understood that it was impossible to cover all aspects for a robust partnership within a contract. Instead, both parties emphasized relational governance through knowledge sharing and joint activities.

To facilitate inter-organizational knowledge exchange and technological innovation, the Government established a forum for the SBR infrastructure development. In the forum, industry stakeholders, including Fujitsu, were encouraged to share ideas that could be used to improve the infrastructure. This was highlighted by I3:

> *"The SBR program has a thing called an Advisory Group with representatives of major industry groups, and of course, Fujitsu is one of them. That is the primary mechanism by which SBR interacts with our partners to find and use the right messages and propositions."*

In the spirit of collaboration, the parties were committed to the best possible outcomes, even if this meant sacrificing some self-interests or relaxing some initial expectations. For example, I4 said:

> *"We also exchange ideas […] we sometimes come up with an idea [like] 'Hey, it would be good if we could add this to the taxonomy'. So we suggest the idea to the Government."*

Frequent joint activity was another important factor that increased transparency and understanding between the two parties. In order to mitigate conflicts, the Australian Government dispatched a business analysis team to join Fujitsu's development team. In addition to the aforementioned forum, the expanded project team communicated with each other through joint activities, such as meetings and teleconferences, when and where needed. Both parties believed that such joint activities contributed to business flexibility in pursuing a higher level of product quality and avoiding costly misunderstandings. This was captured in the following quotation from I1:

> *"The Government has a business analysis team to join […]Fujitsu's very strong development team. The two teams work together to build up the thing, which secures our mutual benefits actually. They build SBR systems for the Government, and the Government is paying money for them. […] We maintain a very close relationship."*

COLLABORATIVE IT OUTSOURCING IN THE PUBLIC SECTOR

As the importance of collaborative ITO grows within the public sector, so too does the need for a more detailed understanding of how relationship management impacts the key aspects of an ITO partnership. Prior ITO reviews provide some guidance, highlighting the importance of motivation, decision-making processes, and outcome evaluations. However, the current study advances our understanding by examining how relationship management influences these factors and contributes to the overall success of a collaborative ITO initiative. From our analysis of the collaboration between the Australian Government and Fujitsu, it would appear that as the relationship deepened, the boundaries between the roles of the clients and suppliers became blurred. To guide future collaborative ITO initiatives in the public sector, we offer the following summary from our case analysis.

1. *Motivation:* Government-client organizations need to focus on their core competencies and understand how outsourcing non-core activities (such as IT functions to external service providers) will help improve performance of an ITO arrangement. It is important to know what each party can bring to the collaboration, as genuine inter-dependency is an important driver of a collaborative ITO partnership.

2. *Decision-making:* Meticulous evaluation processes are needed to help both the Government-client and supplier understand expectations. A staged, selective tender process is an effective way for the Government-client organization to qualify potential collaborators. A key consideration for short-listing a supplier is the extent and quality of top management support; supplier executives should fully support the outsourcing partnership by providing visible leadership and commitment. Another essential factor is trust between the parties. Langfield-Smith and Smith (2003) argue that inter-organizational trust between the client and supplier ensures that both parties are willing to share knowledge and resources. Within the context of complex ITO projects in the public sector, a foundation of prior collaboration and experience also emerges as important.

3. *Outcomes:* Co-created value is a necessary and mutually desirable outcome for the Government-client to pursue in collaborative ITO arrangements. Co-created value in our case was evident in a higher-quality product and greater adoption of the SBR infrastructure. This observation is not only applicable for the current case study but also has the potential to inform other collaborative ITO involving strategic alliances between private- and public-sector organizations. This observation also concurs with Lee et al.'s (2000) assertion that ITO needs to evolve from an emphasis on cost-reduction to the pursuit of more flexible, collaborative partnerships.

4. *Relationship management:* Knowledge sharing and joint activities were identified as the most important considerations for collaborative ITO involving public-private organizations. Both parties need to be open to sharing and transferring knowledge; this overcomes the problems related to lack of understanding, and both parties obtain the advanced knowledge needed to ensure success of the partnership. Strong relationships provide the confidence needed to make this happen. To this end, Jain and Thietart (2013) suggest that the value and benefits to clients, including Government-clients, from collaborative outsourcing are often used to justify the need to share control and knowledge. Our case analysis supports this idea, providing evidence of a virtuous circle where sharing knowledge and technical expertise via joint activities helped reduce complexity and helped generate greater collective support for the project.

DISCUSSION AND CONCLUSION

This study sought to enhance our understanding of collaborative ITO partnerships as a specific type of IT outsourcing within the public sector. Although prior studies have discussed collaborative ITO from many perspectives, very few have considered collaborative ITO within the public sector. Using an endogenous theoretical framework for ITO that was developed for this study, we examined a partnership between the Australian Government and Fujitsu, which was established in order to develop the SBR infrastructure. By focusing on a core set of factors, this study has contributed to an emerging body of theory on collaborative ITO. In particular, our case analysis provides support for the treatment of the public sector as a special research setting for the study of IT-related issues.

The case analysis highlights the most relevant factors and practices that influence an ITO partnership for a public sector organization, illustrating that *core competency focus* and access to *advanced skills* motivate collaborative ITO. Likewise, the selection of the ITO partner was influenced by *management support*, *commitment*, and *trust*. Furthermore, our analysis revealed that a successful partnership relied more on *relational governance* rather than contracts. Real-time *knowledge sharing* and frequent *joint activities* were identified as the most effective relationship-management practices. The study also emphasized that the outcomes of an effective collaborative ITO arrangement were most centered on value co-creation. To this end, it is critical to establish and maintain mutual goals throughout the entire partnership life cycle. These findings reinforce the shift toward more relational forms of outsourcing. These findings also add to our understanding of collaborative ITO within the public sector.

Unlike other forms of outsourcing, *cost saving* is no longer the most important outcome in the case of collaborative ITO; instead, value co-creation through *business flexibility* is identified as being of primary importance. Our study reinforces the importance of relationship management to value co-creation in all stages of a collaborative ITO initiative, enabling insights that have not been highlighted in prior research. In particular, our case analysis highlights the potential for value co-creation to replace cost-saving as both the motivation and outcome of effective, more collaborative forms of ITO.

To this end, future research should seek to further and more broadly explore the drivers of value co-creation within the ITO context and within the public sector setting in particular. As this study investigated a single case in depth, there are limitations to the generalizability of these findings. Future research is also recommended to extend these findings by considering collaborative ITO in other public sector settings. Moreover, the endogenous theoretical framework developed could be extended to consider the integration of multiple service providers; this

would reflect a more realistic understanding of ITO in practice and move beyond what Westergren and Holmstrom (2008) claim to be a theoretical preoccupation with simple ITO arrangements. More in-depth case studies using the theoretical framework, as well as more focus on the network effect of collaborative partnering, would make a valuable contribution to our understanding of collaborative ITO.

REFERENCE

Ang, S., and Straub, D.W. 1998. "Production and Transaction Economies and IS Outsourcing: A Study of the U.S. Banking Industry," *MIS Quarterly* (22:4), December, pp. 535-552.

Babar, M.A., Verner, J.M., and Nguyen, P.T. 2007. "Establishing and maintaining trust in software outsourcing relationships: An empirical investigation," *Journal of Systems and Software* (80:9), September, pp. 1438-1449.

Belavina, E., and Girotra, K. 2012. "The relational advantages of intermediation," *Management Science*, (*58*:9), pp. 1614-1631.

Boell, S. K., and Cecez-Kecmanovic, D. 2014. "A Hermeneutic Approach for Conducting Literature Reviews and Literature Searches," *Communications of the Association for Information Systems*, (34:1), pp. 257-286.

Campbell, J. 2013. "Public sector information systems: Unique characteristics, challenges and opportunities," *Panel session at Australasian Conference on Information Systems,* retrieved 31 July 2014 from http://www.rmit.edu.au/browse;ID=1ntn8ynzxqa6;STATUS=A;SECTION=2;PAGE_AUTHOR=Vince%20Bruno.

Choudhury, V., and Sabherwal, R. 2003. "Portfolios of Control in Outsourced Software Development Project," *Information Systems Research* (14:3), September, pp. 291-314.

Currie, W. L. 1998. "Using multiple suppliers to mitigate the risk of IT outsourcing at ICI and Wesses Water," *Journal of Information Technology* (13:3), September, pp. 159-180.

Currie, W.L., and Seltsikas, P. 2001. "Exploring the supply-side of IT outsourcing: evaluating the emerging role of application service providers," *European Journal of Information Systems* (10:3), December, pp. 123-134.

Dibbern, J., Goles, T., Hirschheim, R., and Jayatilaka, B. 2004. "Information Systems Outsourcing: A Survey and Analysis of the Literature," *The DATA BASE for Advances in Information Systems* (35:4), Fall, pp. 6-102.

Dibbern, J., Chin, W.W., and Heinzl, A. 2012. "Systemic Determinants of the Information Systems Outsourcing Decision: A Comparative Study of German and United States Firms," *Journal of the Association for Information Systems* (13:6), June, pp. 466-497.

Di Romualdo, A., and Gurbaxani, V. 1998. "Strategic Intent for IT Outsourcing," *Sloan Management Review* (39:4), July.

Eisenhardt, K.M. 1989. "Building Theories from Case Study Research," *The Academy of Management Review* (14:4), October, pp. 532-550.

Gefen, D., Wyss, S., and Litchtenstein, Y. 2008. "Business Familiarity as Risk Mitigation in Software Development Outsourcing Contract," *MIS Quarterly* (32:3), September, pp. 531-551.

Jain, A., and Thietart, R.A. 2013. "Knowledge based transactions and decision framing in Information Technology Outsourcing," *Journal of Strategic Information Systems* (22:4), December, pp. 345-327.

Krishnamurthy, K., Jegen, D., and Brownell, B. 2009. "Strategic Out-Tasking: Creating win-win outsourcing partnerships," *Information & Management* (46:1), January, pp. 42-51.

Langfield-Smith, K., and Smith, D. 2003. "Management control systems and trust in outsourcing relationships," *Management of Accounting Research* (14:3), September, pp. 281-307.

Lacity, M.C., and Willcocks, L.P. 1998. "An Empirical Investigation of Information Technology Sourcing Practices: Lessons from Experience," *MIS Quarterly* (22:3), September, pp. 363-408.

Lacity, M.C., and Willcocks, L.P. 2001. Global Information Technology Outsourcing: In Search of Business Advantages. John Wiley and Sons, New York.

Lacity, M.C., Willcocks, L.P., and Khan, S. 2011a. "Beyond Transaction Cost Economies: Towards an endogenous theory of Information Technology Outsourcing," *Journal of Strategic Information Systems* (20:2), June, pp. 139-157.

Lacity, M.C., Khan, S., Yan, A., and Willcocks, L.P. 2010. "A review of the IT outsourcing empirical literature and future research directions," *Journal of Information Technology* (25:4), October, pp. 395-433.

Lacity, M.C., Solomon, S., Yan, A., and Willcocks, L.P. 2011b. "Business process outsourcing studies: a critical review and research directions," *Journal of Information Technology* (26:4), September, pp. 221-258.

Lee, J.N., Huynh, M.Q., Chi-wai, K.R., and Pi, S.M. 2000. "The Evolution of Outsourcing Research: What is the Next Issue?," *Proceedings of the 33rd Hawaii International Conference on Systems Sciences* (7:7), January.

Lee, J.N. 2001. "The Impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success," *Information & Management* (38:5), April, pp. 323-335.

Lee.J.N, and Kim, Y.G. 2005. "Understanding Outsourcing Partnership: A Comparison of Three Theoretical Perspectives," *IEEE Transactions on Engineering Management* (52:1), February, pp. 43-58.

Linder, J. C., Cole, M. I., and Jacobson, A. L. 2002. "Business transformation through outsourcing," *Strategy & Leadership*, (30:4), pp. 23-28.

Mahnke, V., Overby, M.L., and Vang, J. 2005. "Strategic Outsourcing of IT Services: Theoretical Stocktaking and Empirical Challenges," *Industry and Innovation* (12:2), October, pp. 205-253.

McLellan, K., Marcolin, B., and Beamish, P. 1995. "Financial and Strategic Motivations Behind IS Outsourcing," *Journal of Information Technology* (10:4), pp299-321.

Miles, M.B., and Huberman, A.M. 1994. Qualitative Data Analysis, Thousand Oaks, CA:Sage.

Miranda, S. M., and Kim, Y. M. 2006. "Professional versus political contexts: institutional mitigation and the transaction cost heuristic in information systems outsourcing," *MIS Quarterly*, (30:3), pp. 725-753.

NCOA 2013. *Towards Responsible Government*. Retrieved 31 July 2014 from http://www.ncoa.gov.au/report/index.html.

OECD 2013. *Government at a Glance 2013*. Retrieved 25 July 2014 from http://www.oecd-ilibrary.org/governance/government-at-a-glance-2013/production-costs-and-outsourcing-of-general-government_gov_glance-2013-24-en;jsessionid=3bidf16jeqhh.x-oecd-live-02.

Teo, T., and Bhattacherjee, A. 2014. "Knowledge transfer and utilization in IT outsourcing partnership: A preliminary model of antecedents and outcomes," *Information & Management* (51:2), March, pp. 177-186.

Westergren, U.H., and Holmstorm, J. 2008. "Outsourcing as Open Innovation: Exploring Preconditions for the Open Innovation Model in the Process Industry," *29th International Conference on Information Systems*, Paris, pp. 1-15.

Wilkin, C. L., Campbell, J., & Moore, S. 2013. "Creating value through governing IT deployment in a public/private-sector inter-organisational context: A human agency perspective," *European Journal of Information Systems* (22:5), pp. 498-511.

Willcocks, L.P., and Choi, C.J. 1995. "Co-operative partnership and 'total' IT outsourcing: From contractual obligation to strategic alliance?," *European Management Journal* (13:1), March, pp. 67-78.

Willcocks, L.P., Fitzgerald, G., and Lacity, M.C. 1996. "To outsource IT or not?: recent research on economics and evaluation practice," *European Journal of Information Systems* (5:3), January, pp. 143-160.

Willcocks, L.P., and Kern, T. 1998. "IT Outsourcing as Strategic Partnering: The Case of the UK Inland Revenue," *European Journal of Information Systems* (7:1), March, pp. 29-45.

Yu, T. Y. 2014. "An empirical study of collaborative partnering among enterprises and government organizations for information system outsourcing," *Applied Economics* (46:3), pp. 312-322.

APPENDIX (DOCUMENTARY SOURCES)

Auditing and Assurance Standards Board. 2010. "Standard Business Reporting and XBRL: Information for Audit and Assurance Practitioners", Retrieved 3 August 2014 from http://www.auasb.gov.au/admin/file/content102/c3/Bulletin_June_2010.pdf.

Australian National Audit Office. 2009. "Innovation in the Public Sector: Enabling Better Performance, Driving New Directions", Retrieved 3 August 2014 from http://www.anao.gov.au/~/media/Uploads/Documents/article_public_sector_informant.pdf.

Centre for Tax Policy and Administration. 2009. "Forum on Tax Administration: Taxpayer Service Sub-Group: Guidance Note Standard Business Reporting", Retrieved 3 August 2014 from http://www.oecd.org/tax/administration/43384923.pdf.

Productivity Commission. 2012. "Impact of GOAG Reforms: Business Regulation and VET", Retrieved on 3 August 2014 from http://www.pc.gov.au/__data/assets/pdf_file/0007/116728/coag-reform-regulation.pdf.

Fujitsu Achives 2010, 2013. Retrieved 7 August from http://www.fujitsu.com/au/news/pr/archieves/2010/20100808-01.html.

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