INFORMATION TECHNOLOGY MULTISOURCING AT FONTERRA: A CASE STUDY OF THE WORLD’S LARGEST EXPORTER OF DAIRY INGREDIENTS

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INFORMATION TECHNOLOGY MULTISOURCING AT FONTERRA: A CASE STUDY OF THE WORLD’S LARGEST EXPORTER OF DAIRY INGREDIENTS

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Abstract

Organizations have used numerous sourcing strategies to lower IT costs and improve IT service levels. However, a number of these sourcing strategies have failed to deliver on their expected outcomes. Multisourcing has been advanced as a form of sourcing which addresses the deficiencies of other failed strategies. Through our case study of Fonterra, the world’s largest exporter of dairy ingredients, we seek to explore whether multisourcing is a viable IT sourcing strategy. From the Fonterra case, we found that the benefits of multisourcing IT infrastructure stemmed from an ability to lower IT costs, improve IT service levels and enable access to specialist vendors and emerging technologies. The costs and risks of IT multisourcing were centered on the ongoing management of vendors and the underlying importance of a service management layer in organizations.

Keywords: Multisourcing, Outsourcing Strategies, Fonterra.
1 Introduction

The outsourcing of Information Technology (IT) has received considerable attention in both the practitioner and academic literature over the past two decades. During this period, the adoption of IT outsourcing in practice has been widespread. However, a large number of IT outsourcing arrangements have failed to meet expectations (Cohen and Young 2005). These failings can bring undesirable expense to organizations and have given rise to an array of alternative sourcing strategies which have aimed to reduce IT costs, improve service levels and enable access to emerging technologies (Lacity and Willcocks 1998). Multi-vendor sourcing, or multisourcing, is one such strategy.

Multisourcing can be defined as “the disciplined provisioning and blending of business and IT services from the optimal set of internal and external providers in the pursuit of business goals” (Cohen and Young 2005). Under a multisourced IT strategy, a client organization can therefore outsource to vendors which have similar capabilities and provide similar services (Levina and Su 2008).

To date, multisourcing has received only limited attention in academic IS literature. However, its origins may lie in the shortcomings of alternative IT outsourcing strategies. Past IS research has found that short-term outsourcing contracts achieved expected cost savings with a higher relative frequency than long-term contracts (Lacity and Willcocks 1998; Lacity et al. 1995) thereby suggesting that outsourcing contracts would get smaller over time. Selective sourcing was therefore a common IT sourcing strategy which was typified by short-term contracts for specific activities (Lacity et al. 1996). Furthermore, outsourcing vendors were found to be experts only in certain fields (Edgell et al. 2008) and were less suited to the all-encompassing ‘mega-deals’ that were entered into with organizations.

To address the inherent shortcomings of large IT outsourcing contracts, the notion of managing a small set of highly qualified and knowledgeable vendors has been advanced as a means of enabling flexibility, maintaining competitive prices and sustaining collaborative relationships with vendors (Poston et al. 2009). The flexibility in being able to select multiple vendors has been likened to ‘shoppers at a fruit stand’ where organizations can ‘pick an apple here or an orange there’ until they have selected a menu of outsourcing services (Lacity and Hirschheim 1993). To this end, creating a portfolio of providers mitigates the risk associated with over-reliance on a single provider (Lacity et al. 2008).

This paper is amongst the first to look at the potential benefits, costs and risks of IT multisourcing. A better understanding of these areas will enable practitioners to ascertain whether IT multisourcing is a viable sourcing strategy for their organizations. Our research question is therefore: What are the benefits, costs and risks of IT multisourcing?

Throughout this paper, organizations that outsource IT functions will be referred to as “client organizations” and their outsourcing providers will be referred to as “vendors” or “providers.” Consequently, this paper will consider multisourcing from the perspective of client organizations. Furthermore, our case study will discuss the outsourcing of IT infrastructure only.

The remainder of this paper is organized as follows: Section 2 reviews academic IT outsourcing literature to surface the benefits, costs and risks of a multisourced IT strategy. Section 3 explains the research methodology. Section 4 provides the context around our case study of Fonterra and our findings from the organization’s transition into a multisourced IT environment. Section 5 discusses these findings in light of existing IS research. Finally, Section 6 surfaces the limitations of this study and proposes avenues for future research.
2.1 The Benefits of IT Multisourcing

Past research in the wider domain of IT outsourcing has suggested that the greatest benefit of multisourcing is that of flexibility. In this respect, a loss of flexibility through single-sourcing may limit a client organization’s ability to change the extent, nature or scope of their outsourced services (Tan and Sia 2006). Organizations require flexibility in IT so as to pursue different options should their business circumstances change (Lee et al. 2003). Through a multisourced IT strategy, client organizations have the flexibility to structure outsourcing agreements to cater for varying cost saving targets, contract durations, risk management strategies and service offerings.

A common maxim in IT is the need to do ‘more with less.’ This suggests that IT managers must continue to find ways of using IT to deliver business value whilst dealing with the challenge of lowering costs. In this respect, part of the value of a multisourced strategy stems from an ability to lower IT costs beyond a single-sourced model. As an illustration, multisourcing resulted in cost savings of 30-40% for a large global bank over a five year period and came with the added advantage of supporting the bank’s organic growth (Levina and Su 2008). Further evidence stems from the example of a Fortune 100 manufacturer of industrial equipment which outsourced software development work to three providers to keep costs low and quality high (Rottman 2008).

A multisourced IT strategy also enables client organizations to tailor the duration of individual contracts in accordance with their outsourcing objectives. Long-term contracts can often lead to vendors gaining substantial knowledge about a client’s people, organization, and systems (Poston et al. 2009). However, long-term relationships may evolve negatively over time to the extent that the client loses proprietary knowledge, suffers from above-market prices and foregoes the technological capabilities that other vendors are able to offer (Poston et al. 2009). By contrast, short-term contracts can keep vendors ‘on their toes’ in that outsourcing arrangements can be extended based on how well each vendor has performed over the course of the relationship. Client organizations can also use the threat of market competition amongst existing vendors to gain the best price and service quality (Poston et al. 2009).

Greater flexibility in a multisourced environment enables client organizations to reduce risk (Levina and Su 2008). An offshoot from the risks surrounding contract duration is that of vendor lock-in. This refers to situations when client organizations cannot terminate their IT outsourcing contracts without incurring a loss (Aubert et al. 1998). Lock-in may occur when a given vendor accumulates proprietary knowledge about how a client organization’s IT functions are run. This is a risk in that a client organization can be ‘held to ransom’ by their provider in the form of above-market costs. The principle of spreading this risk amongst multiple vendors through a multisourced strategy can reduce the damage caused by one bad contract (Aubert et al. 2005; Gottschalk and Solli-Sæther 2006).

Multisourcing also helps reduce vendor-specific risks. Management at British Petroleum felt that giving control of IT to a single outsourcing provider resulted in a dependency on the quality of that provider’s skills, management, technology, and service capabilities (Cross 1995). Like all other organizations, outsourcing vendors must contend with business risks which can include negative cash flows, declining sales or a lack of innovation. For this reason, contracting with multiple IT vendors can mitigate some of the risk associated with over reliance on a single vendor.

Multisourcing enables greater flexibility in being able to draw on the technological capabilities of an array of IT vendors. Academic research has found that the need to independently keep abreast of technology becomes apparent to every CIO shortly after their organizations outsource operational information systems (Davis et al. 2006). Under any IT outsourcing arrangement, client organizations are limited to the technological capability of their chosen vendors which, in turn, could diminish over the life of a contract (Willcocks and Lacity 1999). The flexibility of a multisourced strategy addresses this issue by recognising that different IT vendors are specialists in different areas. Client organizations can therefore draw on the capabilities of these specialist vendors by adding them to their outsourcing portfolios (McLellan et al. 1995).
2.2 The Costs and Risks of IT Multisourcing

Early IS outsourcing research suggested that several published reports of outsourcing presented only a rosy picture of its benefits (Palvia 1995). Subsequent research has suggested that practitioners cannot afford to be unprepared and want to explore the costs and risks of an outsourced IT strategy (Barthélemy 2001). To this end, the costs associated with IT multisourcing are split into pre-contract and post-contract costs. The risks of IT multisourcing stem from contract values and ownership gaps.

The pre-contract costs associated with the search and evaluation of vendors have been consistently underestimated in practice (Barthélemy 2001; Michell and Fitzgerald 1997). Not surprisingly, poor vendor selection often leads to a relative lack of success in an outsourcing relationship (Currie and Willcocks 1998). This has been analogised by suggesting that ‘determining which supplier(s) to depend on is akin to acting as the matchmaker for an arranged marriage’ (Cullen et al. 2005). IT practitioners will appreciate the practical relevance of these findings, particularly in knowing that evaluating and selecting vendors involves dealing with a level of ambiguity. This risk can be exacerbated in a multisourced environment where client organizations must take on the overhead associated with the search and evaluation of multiple vendors.

Interestingly, the post-contract management of outsourcing relationships is a cost that several client organizations have also neglected to consider up front (Barthélemy 2001). At a more operational level, the management of outsourcing relationships involves providing governance over IT vendors and monitoring their performance (Davis et al. 2006). This governance requires management to invest time and effort, both of which attract additional cost (Earl 1996). With this in mind, it is clear that a multisourced IT strategy will require client organizations to invest more time and money in the ongoing management of their various providers (Currie and Willcocks 1998). Accordingly, IS research has found that management costs rise as managers need to contract, coordinate, and collaborate with multiple providers (Levina and Su 2008).

When compared to a single-sourced model, the individual contracts under a multisourced IT strategy may be too small to successfully attract and maintain the interest of vendors (Lacity et al. 2008). Based on the value of contracts awarded to individual vendors, a multisourced strategy may therefore remove the incentive for vendors to make relationship-specific investments. The implications of this risk are implicit in the strong links between relationship quality and outsourcing success (Blumenberg et al. 2009; Grover et al. 1996; Kelly and Noonan 2008; Lee et al. 2008; Mao et al. 2008). In particular, the former brings trust, an understanding of the client’s business (from a vendor’s perspective), a willingness to share risk and a reduction in client-vendor conflict (Lee 2001; Wülftenweber et al. 2008). In a multisourced environment, the potential absence of partnership quality is therefore a significant risk which client organizations must seek to mitigate.

Client organizations must also consider the risk of ‘finger pointing’ amongst their providers in a multisourced environment. This principle can be exemplified through the IT outsourcing relationships between Wessex Water, a British utility company, and their four outsourcing providers (Currie 1998). Over the course of these contracts, the company under-estimated the importance of managing service ownership gaps between each of their providers. These ownership gaps led to a decline in IT service levels and were caused because the providers relied on each other, or on Wessex Water, to address issues. In principle, this risk can only be compounded as client organizations increase the number of outsourcing providers that they engage with.

3 Research Methodology

We used interpretive case study research in this project (Klein and Myers 1999; Walsham 1995; Walsham 2006; Yin 1994). Primary data was obtained by conducting three interviews with senior managers at an organization operating in a multisourced IT environment. This approach enabled an understanding of the context in which decisions were made and actions took place (Benbasat et al. 1987).
Borrowing from previous literature on multisourcing (Levina and Ross 2003), our research needed a case where (a) a client organization was sourcing IT services from multiple providers, (b) the client organization had sufficient experience with multisourcing to the extent that its benefits, costs and risks were experienced or made evident, (c) the client organization could provide access to managers that could talk through their experiences with IT multisourcing, (d) those managers were willing and able to share their insights on IT multisourcing. Our case study of Fonterra, the world’s largest exporter of dairy ingredients, satisfied these criteria.

Individuals were selected for interview based on their knowledge of IT multisourcing and the degree to which they were involved in the decision to multisource. The interviews were conducted at Fonterra’s Auckland offices in September 2009, were face-to-face, semi-structured and lasted for approximately 30 minutes each. The interview language was English. Each interview was recorded and transcribed.

The transcribed interviews were thematically analysed in light of the literature covered in Section 2, as well as the research question put forward by this paper (Miles and Huberman 1994). The insights obtained from these interviews helped us to improve our understanding of the subject.

4 IT Multisourcing at Fonterra

Fonterra Co-operative Group (Fonterra) is owned by 11,000 farmer shareholders in New Zealand and is the world’s largest exporter of dairy ingredients. Fonterra was formed in 2001 from the merger of the New Zealand Dairy Board, New Zealand Dairy Group and Kiwi Co-operative Dairies. In the annual report to its shareholders in 2009, total revenues stood at USD 11.5 billion and total assets at USD 9.8 billion. As at the date of the annual report, Fonterra had operations in more than 140 countries and employed close to 16,000 full-time staff. Importantly, Fonterra generates 25 per cent of New Zealand’s total export earnings.

IT is a strategic enabler of various business processes at Fonterra and is ubiquitous throughout the supply chain, manufacturing, warehousing, distribution and across a number of back office functions. In 2003, Fonterra entered into a seven year IT infrastructure outsourcing contract with a major global vendor. This single-sourced arrangement covered the management of Fonterra’s midrange servers, networks, desktop computers, laptop computers, helpdesk services and utility software. As part of the deal, the outsourcing provider also took ownership of Fonterra’s IT infrastructure assets. To this end, outsourcing was viewed as a means of reducing IT operating costs and working capital at Fonterra.

Whilst significant levels of IT were outsourced, Fonterra continued to perform a number of functions in-house. The IT function is predominantly centralised with teams dedicated to IT infrastructure management, service management, commercial governance, applications management, IT strategy, business engagement and project governance (see Figure 1 below).
In 2006, Fonterra renegotiated their IT infrastructure outsourcing contract in order to lower costs further and to respond to changing business requirements. These negotiations resulted in the signing of a four year extension to the original outsourcing contract signed in 2003. In 2008, Fonterra altered their sourcing strategy for IT infrastructure and moved to a multisourced approach. This decision was motivated in part by the deficiencies of single-sourcing.

We had this ‘one size fits all’ solution for our users and what that really means is ‘one size fits none’ because there is a lowest common denominator that has caused some pain in some areas of our business and we needed to look at how we could address that.

Fonterra’s multisourced strategy involved ‘unbundling’ the IT infrastructure services that were previously delivered by their single-sourced provider. Following this decision, Fonterra retained the services of this provider (albeit at a lower total contract value) and entered into direct relationships with a number of new providers (see Table 1 below). Multisourcing was rationalised by the difficulty in being able to find a sole provider which was ‘good at everything.’

It is difficult to find a vendor that can provide every service to a high level of quality. If you look at where there are particular capabilities and competencies in the market and if you target those vendors, you get a better outcome because there are certainly different providers which have their own sweet spots.

<table>
<thead>
<tr>
<th>Vendor</th>
<th>IT Infrastructure Services Outsourced By Fonterra</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>IT helpdesk, desktop and laptop support, data centre management, storage area network management, utility software</td>
</tr>
<tr>
<td>B</td>
<td>Local area network and wide area network management and support (Australasia)</td>
</tr>
<tr>
<td>C</td>
<td>Local area network and wide area network management and support (Rest of World)</td>
</tr>
<tr>
<td>D</td>
<td>Maintenance and support of handheld scanners (used in manufacturing plants)</td>
</tr>
<tr>
<td>E</td>
<td>Maintenance and support of printers and multi-function devices</td>
</tr>
<tr>
<td>F</td>
<td>Provision of end user equipment including desktop computers, laptop computers, monitors, desk kits</td>
</tr>
</tbody>
</table>

Table 1. Overview of IT infrastructure services outsourced by Fonterra

As part of the transition into a multisourced environment, Fonterra sought to integrate their providers into a cohesive operating model. This was advanced as a key point of differentiation between IT multisourcing and alternative strategies such as selective sourcing.

There are a lot of companies out there that do a lot of selective sourcing i.e. they have some functions in-house, they use Vendor A to do some things and B to do other things and C to do different things. I think there is a big difference between that and true multisourcing and that being that multisourcing is actually integrating A, B and C vendors together to work within one operating model.

The decision to multisource meant that Fonterra had to develop an effective service management layer and redesign business processes. This transition involved creating significant levels of process documentation which identified points of handover between vendors. The service management layer was required to manage and provide governance over the outsourcing providers in accordance with the needs stemming from Fonterra’s business users. As part of this layer, Fonterra ran joint workshops and meetings with their vendors so that management could take a holistic view over IT processes and the service levels which were being achieved. Unsurprisingly, the success of these forums required collaboration between each of the vendors.

The governance forums that are based around incidents (i.e. Incident Management) are often multi vendor forums because sometimes it could be the server, it could be the application or
it could be the network - so you have to look at the whole thing. What we are generally seeing is more and more vendors are getting together without us even being involved.

In order to facilitate this collaboration between vendors, management at Fonterra also gave the vendors a degree of freedom to establish how they would integrate and collaborate within Fonterra’s multisourced environment.

The other thing we are getting in place is what we call ‘operating level agreements.’ They are not contractual agreements but are instead expectations that the parties have between each other and which contribute to Fonterra’s outcomes. It is us saying, “We want you guys to work together like this and you guys document how you are going to do that and what your expectations of each other are.”

An important finding from the interviews indicated that management at Fonterra did not set out on their IT multisourcing journey with a pre-defined number of vendors in mind. Instead, it was the appetite for change within the organization which dictated the number of vendors that Fonterra eventually contracted with.

In terms of picking a number, we never really picked a number. I mean, just by going from single-sourced to multisourced, we had to know about all those contracts, rebuild governance models, focus on account management and manage relationships with each of those vendors - so it was quite a big job.

4.1 The Benefits of IT Multisourcing at Fonterra

The move to a multisourced environment was motivated by a number of factors. Senior IT managers at Fonterra wanted to reduce and provide greater clarity over IT costs. These sentiments stemmed largely from business unit managers whose functional areas received a charge back for the direct costs of IT. The findings from our interviews suggested that Fonterra succeeded in lowering their IT infrastructure costs through multisourcing. These cost savings were created through careful rounds of negotiation where pricing was agreed with each provider.

I think we went into it (multisourcing) thinking we had made some pretty aggressive cost savings and it is fair to say that the savings are probably greater than what we thought they would be. As you get into it and start negotiating, you realize just how flexible some of these providers are in terms of their costs. From a savings point of view, it (multisourcing) exceeded expectations.

Management also wanted to gain access to emerging technologies in the IT marketplace through a direct relationship with specialist vendors. This behaviour stemmed from an inability to directly access those technologies under their single-sourced arrangement.

When you are sitting there as a customer and you can see greener grass in other paddocks, you continually think, “Well, how can I get over into that paddock?” when you have actually got a single-sourced contract that is keeping you boxed in.

To this end, the service offerings of Fonterra’s new outsourcing providers enabled access to emerging networking, virtualization and cloud computing technologies. Gaining access to these technologies was in line with Fonterra’s strategic IT objectives. Moreover, the interviewees signalled a stepped improvement in IT service levels under Fonterra’s multisourced model. The most telling evidence of this was during the transition process when Fonterra switched network management and support services from their single-sourced provider to a new provider.

From a service point of view, it (the transition) was pretty seamless. I know the team did a huge amount of work to make it that way but a lot of people probably did not even notice the fact that their services had transitioned. It was totally transparent to them so that was good.

Under the original single-sourced agreement, Fonterra felt that their vendor’s cost structure precluded them from changing their service offerings to meet Fonterra’s business requirements. Fonterra found that renegotiating the outsourcing agreement with their single-sourced provider
moved the latter into a position where they were supplying IT infrastructure services they were capable of performing well. This was an intriguing finding that emerged from the interviews.

We found that, as we went into multisourcing, it reduced their revenue but what it did was actually get them back into an area where they were operating more within what might be called their ‘sweet spots.’ It took away a lot of their financial risk so the end result for them was that we were happier.

4.2 The Costs and Risks of IT Multisourcing at Fonterra

The post-contract management of Fonterra’s new outsourcing relationships necessitated a reorganization of Fonterra’s IT Commercial and Performance Team. Within this team, Fonterra employed Commercial Analysts who were responsible for resolving commercial, contractual and accounts related issues. This reorganization of the Commercial and Performance Team also increased the number of resources dedicated to the ongoing management of the new vendors. Additional headcount was also needed in Fonterra’s IT Infrastructure and Service Management Team to address the emphasis on the service management layer. Naturally, the requirement for these resources was greater than under Fonterra’s single-sourced arrangement.

In terms of cost, we had to increase the number of people we have here just to be able to manage those new arrangements and the responsibilities that we are taking back on ourselves.

The interviews also revealed that Fonterra were very clear around the scope of the IT infrastructure services that were going to be contracted out. One of the interviewees acknowledged that a reduction in total contract value could have resulted in a scenario where Fonterra were not given priority by any one of their providers.

There is always a risk when you enter into these things that a supplier could throw their toys and make it very difficult. We were always looking for a good reason for both parties to get the right outcome. We had to be very careful there because, after all, if they threw their toys that could mean that they may not give us the priority that they needed to give.

Interestingly, the findings from Fonterra indicated otherwise. Whilst the monetary value attached to each contract cannot be disclosed (for confidentiality), the size and scope of Fonterra’s business was sufficiently large such that the vendors were all able to ‘get their fair share.’

We are quite a big thing to bite off and we’ve been pretty overt in our requirements to make sure that things are operating before the vendors go anywhere else. There is always going to be suspicion (of vendor opportunism) and we just have to keep focusing them (the vendors) on the business outcome so it does not become about them conflicting.

Whilst Fonterra believed there was sufficient scope for each of their vendors, this did not fully absolve the organization from risk. In particular, management believed that the effects of the global economic crisis had negatively impacted some of their ‘smaller’ vendors.

I won’t name them but there’s been a couple of smaller vendors that, due to the global economic crisis that is going on, have suffered themselves and that is a risk to us in that they may pull support teams out of the country.

Finger pointing amongst vendors is a risk that client organizations must seek to mitigate in a multisourced IT environment. Fonterra acknowledged that the integration between vendors was a significant risk in that declining service performance could have resulted in a ‘blame game’ between each of the vendors.

The challenge is that whole integration layer and actually getting all the vendors to work together and trying to ascertain, when there are grey areas, exactly whose accountability it is...and to make sure that inefficiencies do not actually creep in because there is more than one party involved in doing something.
5 Discussion

Fonterra’s multisourced strategy involved sourcing IT infrastructure services from multiple providers. These providers were integrated into a single operating model and governed using a service management layer which took a holistic view over the organization’s IT processes. Furthermore, Fonterra defined operating level agreements to govern how the vendors would work with each other. These are distinct to service level agreements which are used as a control mechanism to benchmark performance and implement penalties for non-compliance. Interestingly, Fonterra did not approach multisourcing with a defined number of vendors in mind. Instead, it was the appetite for change within the organization which dictated how many IT providers management were willing to outsource to. This is an intriguing dimension which has not been considered in previous IS research.

From the case study, multisourcing enabled Fonterra to achieve IT infrastructure cost savings which exceeded expectations and were beyond the savings delivered under the organization’s single-sourced arrangement. These overall cost savings more than offset the costs associated with the increase in headcount required to provide governance over the vendors. Crucially, Fonterra also benefited from a stepped improvement in the level of IT service levels the business was receiving. Furthermore, Fonterra gained access to emerging technologies through direct relationships with specialist vendors. The move to multisourcing also benefited Fonterra’s former single-sourced provider which was now contracted to deliver services where it had a strong track record. Whilst this reduced the total contract value for the provider, this enabled more profitable business and was an unexpected, yet invaluable, finding from this study.

The costs and risks of IT multisourcing in the case study stemmed from the need to integrate and provide governance over multiple providers. This meant that Fonterra had to increase IT headcount to manage their new outsourcing relationships at strategic and operational levels. Although there was also a risk that multisourcing could slice contract values too thinly, Fonterra was able to leverage its size and scale to mitigate this risk.

Whilst multisourcing was advanced as a means of spreading risk and intellectual property amongst a portfolio of vendors, the interviews suggested that this risk was accentuated in a multisourced environment. To this end, management at Fonterra felt there was a risk that two IT providers could pull out of New Zealand in response to the global economic crisis. Fonterra also acknowledged the risk of finger pointing amongst its providers but sought to reduce this risk by integrating their vendors within a single and cohesive operating model. Table 2 provides a synthesis of existing literature and re-surfaces findings from the case which corroborate or contradict the literature.

6 Conclusion

The objective of this paper was to provide a preliminary understanding of the benefits, costs and risks of IT multisourcing. Our analysis and discussion of the Fonterra case enabled us to obtain this understanding and contributes to the limited body of IS research on multisourcing. Our specific contribution to IS research stems from how the Fonterra case corroborates and contradicts the literature as presented in Table 2. One key finding is that the ownership gaps and increased risk of finger-pointing can be overcome by a stronger governance model. The case study thus contributes to practice as IT managers in client organizations can learn from the successful transition to multisourcing at Fonterra and seek to replicate or improve on this approach.

There are, of course, various limitations of this study. Many IT outsourcing studies have examined outsourcing relationships over a longer period of time to examine how these relationships have evolved. Our study is limited by the short time frame of our case study. Another limitation is that we studied just the one organization.
Nevertheless, the limitations of this study suggest avenues for future research. Along these lines, further research into IT multisourcing over an extended period of time is required to gain a more complete picture of its benefits, costs and risks. IT multisourcing could also be explored using
<table>
<thead>
<tr>
<th>Found benefits, costs and risks of IT multisourcing in academic literature</th>
<th>References to academic literature</th>
<th>Found benefits, costs and risks of IT multisourcing at Fonterra</th>
<th>Comparison with academic literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to lower IT costs beyond the levels achieved under single-sourced arrangements</td>
<td>(Levina and Su 2008); (Rottman 2008)</td>
<td>Multisourcing resulted in IT cost savings which exceeded expectations and were greater than the cost savings achieved under the organization’s single-sourced strategy</td>
<td>Corroborates literature</td>
</tr>
<tr>
<td>The duration of individual outsourcing contracts can be tailored in accordance with IT outsourcing objectives</td>
<td>(Poston et al. 2009)</td>
<td>A stepped improvement in IT service levels was observed</td>
<td>Corroborates literature</td>
</tr>
<tr>
<td>Reduced vendor lock-in and vendor-specific risks through the reduced dependency on a single vendor</td>
<td>(Levina and Su 2008); (Aubert et al. 2005; Gottschalk and Solli-Saether 2006); Cross 1995</td>
<td>Whilst the risk of vendor lock-in had reduced, Fonterra was now exposed to vendors which were adversely impacted by the global economic crisis</td>
<td>Contradicts literature</td>
</tr>
<tr>
<td>Gain access to the technological capabilities of a wider array of vendors</td>
<td>Willcocks and Lacity 1999; McLellan et al. 1995</td>
<td>Fonterra gained access to emerging networking, virtualization and cloud computing technologies offered by specialist IT providers</td>
<td>Corroborates literature</td>
</tr>
<tr>
<td>Not explicitly considered in existing academic literature</td>
<td></td>
<td>Multisourcing reduced the total contract value between Fonterra and their former single-sourced provider. However, this reduced the financial risk for this provider and ensured they were providing IT services where they had a strong track record</td>
<td>Contradicts literature</td>
</tr>
<tr>
<td>Pre-contract search and evaluation costs are likely to be higher than traditional single-sourced arrangements</td>
<td>Barthélemy 2001; Michell and Fitzgerald 1997</td>
<td>Inconclusive from the interviews</td>
<td></td>
</tr>
<tr>
<td>Increased post-contract overhead is associated with managing multiple IT outsourcing relationships</td>
<td>Barthélemy 2001; Earl 1996; Currie and Willcocks 1998; Levina and Su 2008</td>
<td>Fonterra increased IT headcount to manage the new outsourcing relationships at strategic and operational levels</td>
<td>Corroborates literature</td>
</tr>
<tr>
<td>Contract values are too small to attract and excite vendors</td>
<td>Lacity et al. 2008</td>
<td>The risk of vendors ‘throwing their toys’ was acknowledged. However, this did not eventuate because Fonterra was large enough to attract and maintain the interest of new providers</td>
<td>Contradicts literature</td>
</tr>
<tr>
<td>Finger-pointing between vendors leads to ownership gaps and declining IT service levels</td>
<td>Currie 1998</td>
<td>The grey areas around responsibility and points of handover increased the risk of finger-pointing. However, this risk was mitigated by defining operating level agreements, integrating vendors into a cohesive operating model, and providing governance using a service management layer</td>
<td>Contradicts literature</td>
</tr>
</tbody>
</table>

*Table 2. Summary of findings from the Fonterra case*
We began this paper by drawing on existing IS research literature to suggest that IT sourcing arrangements have evolved to include multisourcing as a viable sourcing strategy. Whilst the costs and risks of IT multisourcing must be acknowledged, the value of this strategy seems to lie in its potential to lower costs, improve IT service levels and enable access to specialist vendors and emerging technologies. With this in mind, multisourcing is likely to become a mainstay in an expanding suite of IT sourcing strategies.

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