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DELIVERY OF IT SERVICES: A CASE STUDY OF OUTSOURCING AT ALPHA CORPORATION

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Abstract

The practice of outsourcing IT in Australia has only recently become commonplace. One large corporation, Alpha, was an early mover in outsourcing beginning in 1997 and is the subject of this study. Previous research proposes reasons for outsourcing and numerous factors which contribute to outsourcing success. This paper explores the reasons and the extent to which these identified factors for outsourcing success were important in this case and highlights a number of factors not identified in the literature but crucial to Alpha. Among the factors not identified were: consideration of the capabilities of the outsourcing vendor, type of partner arrangement, and the changing business environment. It has taken Alpha almost 10 years to reach a point where their outsourcing strategy could now be considered entirely successful. This paper reflects on the lessons learnt by Alpha over that time.

Keywords: outsourcing, IT services, case study.

1. INTRODUCTION

Numerous studies have been conducted and papers written on the topic of IT outsourcing (Dibbern et al. 2004). As reflected on by Barthelemy and Geyer (2004), the published research has focused on two key areas: what determines a company's decision to outsource, and the management of outsourcing contracts and outsourcing partners. This paper presents a case study which explores both these areas from the perspective of the IT outsourcing experience of one large corporation over an 8 year period and reflects on the lessons learnt from the experience.

2. OUTSOURCING BACKGROUND

Much research has been conducted and reported on why companies take the decision to outsource dating back to the early 1990s. From the perspective of the literature we examine the reasons for outsourcing decisions then identify the success factors. Briefly key reasons for outsourcing are:

- Companies looking for IT cost reduction and efficiency, (DiRomualdo and Gurbaxani 1998) or “Outsourcing for operational efficiency” (Smith and McKeen 2004). This involves outsourcing some of the more ‘utility’ functions of IT with a clear objective of saving money through reductions in staff and other resources. For example savings can be made through the introduction of charge back systems to reduce user calls to a helpdesk (Lacity and Hirschheim 1993).
- The use of outsourcing to strategically improve business performance. “Business Impact”, looking to the IT marketplace for state-of-the-art skills that are not currently available within the organisation (DiRomualdo and Gurbaxani 1998). Using outsourcing for “business processes that are not considered business critical” (Smith and McKeen, 2004).
- Outsourcing for “Commercial exploitation.” Smith and McKeen (2004) use the term “Outsourcing for tactical support”. The aim is to increase the availability and numbers of IT staff to the organisation “to achieve flexibility and responsiveness”. The outsourcing organisation keeps

the mature systems running while the company embarks on the development of new systems using existing staff.

As mentioned, given the extensive literature in the area, we have limited our discussion to key authors and significant papers published in the area. We acknowledge that there are many other papers and authors worthy of consideration however we believe the following are representative of the main issues broadly discussed in the literature. Table 1 summaries seven key issues that could be regarded as high-level factors that contribute to successful outsourcing.

Issue	Supporting reported research
Selecting carefully what is to be outsourced and what will be managed in-house	(Lacity et al. 1996; Smith and McKeen 2004)
The involvement of both business and IT executives in the outsourcing decision making process including the alignment of IT and the business function	(Lacity et al. 1996; DiRomualdo and Gurbaxani 1998; Lacity and Willcocks 2000; Smith and McKeen 2004)
Understanding and managing all costs and ensuring the pricing structure is appropriate, including identifying hidden costs such as those associated with managing the outsourcing contract	(Lacity et al. 1996; DiRomualdo and Gurbaxani 1998; Kern and Willcocks 2002; Ho et al. 2003)
The length of the contract	(Lacity et al. 1996; Barthelemy and Geyer 2004)
The need for detailed contracts that are well thought out and have some level of flexibility including the employment of appropriate IT technical expertise	(Kern and Willcocks, 2002; Beaumont and Costa 2002; DiRomualdo and Gurbaxani 1998; Lacity and Willcocks 2000)
Managing the relationships between the business and the outsourcing company and the internal relationships	(Lacity and Willcocks 2000; Choudhury and Sabherwal 2003; Ho et al. 2003)
Careful selection of people and skills of those retained	(Lacity and Willcocks 2000)

Table 1 Seven key outsourcing success factors.

Outsourcing is a standard business practice today with many Australian companies using it to some extent. Recent Australian research found 57% of companies outsourced some work (Beaumont and Costa 2002), with larger organisations more likely to engage in outsourcing than smaller firms. It is therefore appropriate to examine how one large company managed its outsourcing arrangements over a period of time. This paper describes the outsourcing experience of one large corporation - which we will call Alpha - over an eight year period beginning in 1997.

3. RESEARCH METHOD AND DATA ANALYSIS

Walsham (1995) notes that: “It can be argued that there is a need for much more work from an interpretive stance in the future, since human interpretations concerning computer-based information systems are of central importance to the practice of IS, and thus to the investigations carried out by IS researchers.” (pg.80) This paper presents an in-depth interpretive case study. The first step Walsham argues is to establish a theoretical framework based on previous knowledge. Table 1 presents the theoretical framework which was used to explore how Alpha as a large organisation, approached outsourcing from a decision making perspective. The selection of Alpha for the case study was based on the following:

- Alpha at the time was one of Australia’s largest corporations
- Alpha was amongst the first large Australian companies to extensively outsource their IT function
- Data for the period 1997 – 2004 was available from key individuals in Alpha .

Data for this case study was gathered over time via interviews with a number of senior people within the organisation who were responsible for the decisions and management of the outsourcing arrangements. The interviews did not include other managers or employees as the focus is on the high level company decision making. One of the authors was the National Sourcing Manager for Alpha and a member of the commercial group responsible for managing the relationships with the contract companies. His involvement began in 1997, and from 2000 to 2003 he played a major role. The material in the case study was reviewed by and augmented through interviews with other involved

Alpha managers during this period. These included: the Director of Corporate Services; the contract manager responsible for the outsource service provider, Delta corporation; and, the contract negotiator for other outsource service providers, Sigma and Epsilon. The documents resulting from the interviews were reviewed by the responsible relationship manager within Sigma.

Walsham (1995) identifies three issues critical for interpretive case studies. One is the researcher's role, for this case, one researcher was a participant observer. As noted by Walsham this allowed the researchers an inside view of the target organisation. However, the risk to the research is a biased view. To address this, interviews were conducted with a range of other important players, described above, both within Alpha and the vendor organisations. Summary documents were circulated to people in all organisations for feedback.

Analysis of the data was guided by the seven key issues identified in Table 1, derived from the literature, as contributing to successful outsourcing. Three distinct 'waves' of outsourcing by Alpha were identified and are described. Finally, the key issues described in Table 1 are used to evaluate the outsourcing experience.

4. ALPHA CORPORATION BACKGROUND

Alpha is a large telecommunications corporation with a dominant market share and with 80 years experience providing essential utility services. Once a government owned monopoly, Alpha was transformed from an engineering / technology driven department to a commercial corporation.

In this transition period, the internal service functions were reorganized and centralized, including accounting and training services, fleet management, engineering construction, warehousing, information technology, property and accommodation. Full costing and transfer pricing of these services was implemented. Reviews of each function were carried out to compare the internal cost with external market prices in order to determine whether the function should continue to be provided internally, or be outsourced to the external market. The internal services units were given a two year moratorium period of protection from external competition whilst internal efficiencies were sought.

Alpha lost its monopoly when direct competition was introduced placing immediate pressure on its profitability, since the new competitors were 'greenfield' start-up companies and had inherently lower costs than Alpha. Alpha had much higher fixed costs than its new competitors.

Alpha has now progressively moved most of the internal service functions to external providers. Outsourcing has been a business practice in Alpha for more than 15 years, as it responds to the pressures of cost reduction and market performance expectations. This paper however describes only the last eight years where the outsourcing focus was on IT.

Alpha was an early user of large scale computing for its engineering and billing needs, and the IT service function evolved in-house, from managing the earliest 'data processing' systems, to operation of a full scale modern corporate platform with three large data centres for mainframe computer systems. All IT functions were performed, including application development and maintenance, and data centre operations. A full range of large scale applications was implemented, including billing, financials, operations workforce management, service & fault management, and customer activation. IT was one of the last functions to be centralized, and at its peak, in the early 1990s, the internal IT group numbered more than 3000 staff and contractors.

5. THE FIRST WAVE OF IT OUTSOURCING

In 1997, Delta Corporation (Delta) began providing outsourced IT services for Alpha. It was a large and complex deal encompassing IT services, data centre operations and facility management and included an agreement for joint business development between Delta and Alpha. Not all IT work was included: major business functions, the financial/ERP systems and the Billing systems, were excluded. Approximately 70% of Alpha's IT budget, around \$500M per annum was outsourced.

The contract was complex due to the large number of staff involved, and took almost two years to complete. At the time the contract was negotiated there was no mature outsourcing industry in Australia. A new Joint Venture legal entity (JV) was formed between Alpha, Delta, and another of Delta's corporate customers to deliver the services. Delta held a significant majority stake in the JV.

The essential elements of the deal were:

- About 2800 staff and contractors were transferred from Alpha to the Delta JV together with key assets (equipment, licences, data centres) required for provision of the services.
- There was guaranteed minimum revenue to the JV – reflecting the scale of the commitment made with the transfer of staff and assets. There were also working cash flow obligations by Alpha – in effect a pre purchase of services – on a pay now, argue later, basis.
- All data centre operations (Ops) and most of Alpha's applications development and maintenance (AD&M) services were outsourced. In value terms, the Ops and AD&M were about 50:50.
- The term was 10 years, with significant costs for early termination.
- The outsourced scope included architecture & design functions.
- Pricing was set against Alpha's 1997 baseline, with commitments by the JV to productivity and efficiency benchmarks included. Productivity was based on Function Point counts and measured as Cost/Function Point.
- Application Maintenance was fixed price against the historical baseline, with defined services, and guaranteed productivity improvements of 10-15% pa, in line with historic IT Industry experience.
- Data centre services had a formula for productivity improvements, but also price escalation for growth in the scale of the applications.

Some restructuring of Alpha's IT organization was necessary as part of the implementation. There was significant turnover of Alpha's senior IT managers and at Delta at the time of the deal including the CIO who initiated the Delta discussions. Accountability for ongoing management passed to new executives in both companies.

5.1 Outcomes of the First Wave

Seeds of future difficulties were sown in the JV structure, and with Delta having the balance of influence. The JV agreement became a major distraction and difficulty in the relationship between Alpha and Delta as each came to manage their differing, conflicting, commercial objectives: cost reduction by Alpha, margin growth for Delta. Alpha found itself heavily dependent on Delta for the provision of services and expertise for approximately half of its business applications.

The details of the engagement process and the pricing approach also led to cost and quality control issues for Alpha. Software enhancement/development was ordered with a conventional quote and acceptance process. Although the contract was flexible and allowed almost any pricing arrangement, in practice the work ordering process favoured time and materials pricing to Alpha, based on a scale of hourly rates for agreed IT staff competencies. In practice, no software development was done as fixed price, and consequently Alpha carried all project cost variance risk.

Since implementation of the contract in 1997, Alpha and Delta have renegotiated key aspects of the outsourcing agreement at about 2 yearly intervals. The immediate workload under the contract included changes and enhancement to applications for Year 2000 readiness, closely followed by implementation of a new goods and services tax regime. This meant that the volume of work was much higher than expected - by about a third, and the agreed hourly labour rates were too high, with over recovery of fixed costs. In 1999, when the contract had been in place for 2 years, there were difficult negotiations regarding new pricing. At this time Delta also had difficulty in meeting the contracted productivity commitments, and faced large reimbursement to Alpha. Agreement was reached for general (and deep) price reductions, structured as discounts at invoice level, when billing exceeded certain threshold levels. This helped Delta meet its productivity obligations by lowering the

effective cost per Function Point (rather than by actually increasing labour productivity). This pricing arrangement worked fine initially, however, work volumes eventually reduced to around the threshold level, at which point Alpha ordered work unnecessarily to ensure volume discounts were maintained.

The mainframe data centre operations part of the contract worked well – it was well understood and well benchmarked. However, management processes for the then newer technology midrange Unix-based systems were not so well defined, and the initial pricing agreement was formula based with disk capacity as a price determinant. By year 3 of the agreement, technology change and low costs of disk storage made this pricing clearly and increasingly uncompetitive for Alpha, but profitable for Delta.

6. THE SECOND WAVE OF IT OUTSOURCING

In 2000, Alpha decided – for further cost reduction reasons – to outsource all the IT systems not previously outsourced to Delta. This coincided with a major reorganization of Alpha's IT function, to move from centralized IT investment and budgeting decisions, and centralized IT delivery, to a 'federated' governance model, with IT investment decisions, work ordering and delivery controlled by the sponsoring business units. A limited tender process was used, with a commercial arrangement based on wider North American experience, including:

- Customer controlled Service Levels, linked with an 'at risk' percentage of fees,
- Industry Benchmarking of productivity for AD&M,
- Scope of services changed to exclude architecture,
- Shorter, 5 year term,
- Volume based pricing with quarterly forecasts of minimum work level.

The scope of work outsourced in the second wave included all the components that were excluded from the initial out sourcing to Delta including the billing systems and the ERP systems.

6.1 Outcomes of the Second Wave

Delta was unsuccessful in their bid for second Wave work. Alpha and Delta also undertook renegotiation of their agreement at this time, to make it operationally consistent, and to address business disquiet over cost and performance quality. This negotiation failed as Alpha had very little leverage, and Delta had no incentive to modify the existing terms and conditions, or to forego guaranteed contract revenues.

Negotiation continued, however, to establish the new work order engagement process, and to resolve issues with the formula based calculation of fees for mid-range data centre operations. This was not resolved until early 2003, when a comprehensive agreement was reached with Delta on the dissolution of the JV arrangements and the guaranteed revenues.

In the meantime there was continuing general dissatisfaction within Alpha with the cost and quality of work by Delta. Work was given to other suppliers, where the revenue guarantee permitted, including Indian based companies, who seemed to perform very well and were demonstrably much cheaper than Delta.

The outsourcing of Alpha's remaining IT portfolio was successfully completed in early 2001 after detailed tender and contract negotiation with another company, Epsilon. Epsilon was an established IT outsourcing provider, with other large outsource contracts. For the tender, Epsilon formed an alliance with Sigma Consulting in order to offer expertise and continuity of service for Alpha's financial/ERP environment. This approach was successful and a detailed service contract was negotiated with the Epsilon/Sigma alliance.

The subsequent approach of these two suppliers to the relationship with Alpha and the management of the outsource service delivery was quite different:

- Epsilon set up a classical 'factory' service operation, staying strictly within the agreed contracted scope of managing the Billing systems. This in itself was a substantial workload, involving about

200 staff. Epsilon took no proactive position on development of new billing strategies or facilities for Alpha, to the point of not tendering when such work was offered.

- Sigma saw the outsource relationship as a leverage opportunity to sell other services into Alpha. Sigma actively sought additional work, and quickly had added Alpha's middleware platform and the Siebel call centre platform to the scope of their outsource contract. Sigma was also successful in a systems integration proposal for delivery of an internet billing (transaction rating) platform. At the end of the second year of the contract, Sigma had as much work in dollar value terms from the new scope as from the initial ERP outsource scope.

Problems arose with the decision by Sigma to take on more work:

- The middleware platform was technically unstable. It was in a growth phase and had become mission critical to Alpha. As the implementation grew in scale there were evident problems with the architectural design. These led to operational problems requiring skills beyond the scope of the outsourced services.
- The Siebel platform was also not technically stable, there had been a fragmented implementation with different versions, and poor standardisation, however the technology was reasonably well understood and skilled people were available in the market. The performance of the platform was also strongly dependent on interfaced telephony platforms managed separately by Alpha.
- The billing platform implementation work had been won with the support of skilled Sigma staff from North America. Even though this was ultimately a successful project, there was split accountability between Alpha and Sigma for the early key deliverables, and project delays at that time added to the impression within Alpha of poor performance by Sigma.

7. THE THIRD WAVE: ALPHA DECIDES TO GO OFFSHORE

Early in 2003 on the basis of the issues described above, and the continuing need to reduce costs, Alpha decided to re-tender all of the three outsource agreements. This included considering use of low cost offshore IT services, not previously permitted by Alpha in the first two outsourcing waves. The incumbent suppliers, all of whom had access to offshore development centres, and two Tier One Indian IT providers were invited to compete for the work. Indian IT companies had been prospecting into Alpha for some years and there had been positive experience of their service delivery.

A new CIO at Alpha provided strong executive sponsorship to move IT work offshore. At the same time there was a deep reorganization and rationalization of the overall IT function within Alpha, to recentralize and rationalize the architecture and design functions, particularly to bring the architecture and design functions back in-house to Alpha.

Alpha approached the decision to move to a global outsource model from the position of having outsourced the key IT systems already. The business rationale for global outsourcing is compelling: it is simply a move to use lower cost IT labour – provided that the transition costs are manageable. There is further rationale of expected improved quality from the tailored processes and stricter methodologies (to CMM5) used by the offshore outsourcing companies. The offshore suppliers are specialist outsource providers with large portfolios able to absorb scale risk.

This change has been implemented with contracts similar to the second wave outsourcing, but with modified scope of services, as above. New suppliers, Indian based, have been engaged, and existing suppliers (including Delta) have also been retained on the basis that they are permitted to use offshore labour, and price accordingly. New engagement processes have been implemented, reflecting both the new Alpha IT organization, and the need to manage the interface to overseas development locations.

8. ALPHA'S OUTSOURCING EXPERIENCES

Reduction in costs, improved business performance and outsourcing for commercial exploitation were reasons identified in the literature for companies seeking to outsource their IT. In the case of Alpha the key imperative was cost savings.

The first wave of IT outsourcing by Alpha to Delta was an early foray into outsourcing in Australia, and reflected the knowledge of the time. At the end of the first wave many aspects of the outsourcing arrangements were seen as effective but there were issues in particular with systems enhancement. The second wave dealt with the key issues experienced with Delta: perceived poor quality work, and poor timeliness. Alpha recognized that the first wave outsourcing had been too deep, and hence changed the contract scope in the second wave.

In the following, we look at the effectiveness of Alpha's outsourcing experience in the first and second waves (the third wave continues) based on the seven key factors identified in Table 1.

1) *Careful selection of what is to be outsourced*

At the time of agreement there was little experience and no existing market for the outsourced services in Australia (a single negotiation with Delta occurred). Alpha outsourced all functions in the first wave (architecture, design, building, testing and implementation) and two thirds of applications and business functionality. The mainframe data centre operations were well defined and this part of the contract worked well. However, Alpha included strategic functions including the high level and strategic functions of systems architecture and high level design, and systems design in the scope of the outsourcing. This had several effects:

- Alpha lost key skilled staff, transferred to Delta, and eventually to other clients of Delta,
- Alpha lost control of the scope of work required for system changes,
- Lock-in of Alpha to Delta, or to other suppliers chosen by Delta, and to the selection of technology preferred or owned by Delta.

The result of Alpha outsourcing too deeply, was the loss of important IT knowledge and capability.

The systems outsourced in the second wave were those that had not been outsourced in the first wave, and scope/depth reflected the outcome of the first wave experience. Two major systems were included in the second outsourcing arrangements: the Billing and ERP/financial systems. These were outsourced for cost saving reasons but there was recognition of the need to control architecture design decisions and strategic development of these functions. One particular issue that was addressed in the second wave was to bring back in-house, decisions relating to selection of software and hardware. This gave Alpha more control of lock-in to architecture and software owned by the outsource provider.

2) *Involvement of senior business people and IT in the outsourcing decision*

Despite high level agreement and support for the outsourcing arrangements there was not a significant level of involvement by the business side of Alpha in defining the scope and structure of the first outsourcing. The result was that at the working levels, some areas in Alpha were happy with Delta's performance, however, at senior business management level there were stories of delays and rework by Delta. The impact of the limited involvement of senior business people was that in Alpha's view the service level metrics were not representative of business priorities: for example, they measured component level delivery, but did not drive timely delivery of overall business solutions; there was no service level agreement for levels of rework, or quality of code written. However, under the terms of the contract, service levels could not be modified without agreement by Delta who had no reason to agree to stricter performance measures.

Alpha addressed these problems in the second wave contract by adopting international best practice for developing service level agreements. The new agreements were designed to be adapted, as Alpha's business priorities changed, and to deliver business functionality.

3) *Understanding and management of costs*

Alpha initially underestimated the staff resources and the effort required to manage and administer the agreement. Once the agreement was signed, and the negotiators had left, the haggling began, and continued, over interpretation of agreement terms, documentation particularly the scope of work included in the fixed price agreement, and the work carried out at additional cost to Alpha. There was pressure within Alpha to track and manage to minimize cost, and Delta was logically managing to meet revenue targets.

Cost and service management by both parties was a factor contributing to poor delivery under the agreement. For example: Delta consistently used disproportionate numbers of low level personnel (graduates, base level IT staff) to fulfil the contract. There was very low engagement of higher grade personnel (such as designers, architects, and experienced project managers). The factors driving this behaviour were:

- Alpha made almost exclusive use of hourly rate charging for delivery of enhancement services by Delta, rather than using fixed price, or outcome based service delivery.
- The high dollar value of the contract and the visibility of the monthly invoice payments made proposals by Delta to supply personnel at higher price competency levels unacceptable to Alpha.
- Delta was meeting performance service levels under the letter of the contract. Delta's response to cost scrutiny by Alpha was to maximize the use of low cost personnel.

Monthly cost control of hourly charges, rather than use of outcome based payment for services, contributed to the underlying skewed resource profile, and to poor service delivery. Alpha accepted delivery risk it could not control and was not able to manage.

Alpha's business units were given budget accountability as part of the second wave of outsourcing. They were much more discerning when buying direct from service providers and therefore more frugal when required to pay for every piece of work commissioned. When the business units became accountable, Alpha discovered that the volume of work ordered dropped by about one third. It seems that the IT teams had in the past created much of their own work.

4) *Length of the contract*

The initial JV construct with Delta was used for two reasons: to offset the risk to Delta in taking on the employer liabilities associated with staff transferred from Alpha, and, to create a vehicle for future joint business development. Alpha further committed quite high minimum revenue levels to the JV for the 10 year duration of the contract, on a take-or-pay basis. This created a barrier to renegotiation, since Delta had no reason to forgo the guaranteed revenue stream, and, with majority control of the JV, Delta simply and rationally refused to discuss any changes that impacted this revenue.

Delta and Alpha are both large corporations who expected to exist, and to do business together, well into the future and at least for 10 years. The contract included detailed price and productivity agreements aimed at keeping the deal competitive and effective for such a long period, however, these agreement terms proved inadequate and unmanageable in practice, and Alpha was limited in any negotiation by the penalties for early termination of the contract.

Alpha learned from this and the second wave contracts with Sigma and Epsilon were five year agreements..

5) *Development of detailed contracts with some flexibility built in*

The first wave outsourcing agreement between Alpha and Delta was reached under market pressure to conclude the outsourcing deal. This resulted in Alpha conceding too much control of the commercial situation and Alpha then had little leverage to change the balance of influence with Delta. With business cycles of 3-5 years, and ongoing technology change operating in similar cycles, it is unlikely that any service contract will be appropriate after 5 years, let alone 10 years. Renegotiation of the outsource contract on a 2 to 3 year cycle should have been anticipated, under conditions whereby each

party had the option to walk away, and have the services re-tendered to other suppliers in the marketplace. The contract with Delta did not include balanced conditions for termination, and transition to another supplier.

Alpha was not able to renegotiate the contract with Delta in the second wave. Delta had no incentive to modify the contract, with its guaranteed minimum ordering levels, and there was little Alpha could do. Alpha would have preferred to divert work elsewhere but the inflexibility of the agreement and Delta's uncompromising commercial position meant this was impossible.

The arrangements with Sigma and Epsilon however were different. The contracts were much more flexible in the way work levels could be increased or reduced. There were no minimum work levels or guarantees but there were limitations on the rate of change.

An issue did arise with additional scope of work taken on by Sigma. The expectation by Alpha was that the work would be performed under the terms of the outsource agreement, particularly at the outsource contract daily rates. The middleware platform, and the Siebel platform were new and technically complex. Higher rates were agreed for the initial new works, but these reverted to the contract rates over time. The new work came at a cost to Sigma; there was a general market shortage of skilled resources for both the middleware platform and the new billing platform, and these resources had to be obtained at rates far in excess of the outsource contract rates. The end result was that the new work was short-staffed and suffered from insufficient skilled resources (i.e. lack of staff with the deep technical skills required of such large and complex systems). Although Alpha had flexibility, problems arose because of the difficulties Sigma faced.

6) *Management of relationships both internal and external*

Alpha initially underestimated the effort needed to manage the outsource agreement with Delta. There was tension between Alpha's objectives of cost control, and Delta's need for revenue. This contributed to a general view within Alpha management that Delta's performance was high cost and low quality, although Delta consistently met the service level metrics agreed in the contract.

In the second wave Alpha had more control of service quality due to the more effective Service Level measures, and was generally satisfied with Epsilon and Sigma's performance. As discussed above, issues arose from the additional scope that Sigma took on. When service quality problems became evident in the middleware and Siebel platforms, it was generally attributed within Alpha management to Sigma's performance, even though many of the technical issues were within the related systems managed by Alpha. Delays in the projects to which both companies contributed were seen solely as a problem with Sigma.

7) *Selection of IT staff to be moved to outsourcing vendor*

The decisions by Alpha regarding which IT staff would be outsourced was determined by the decision of what scope and functions was to be outsourced. Alpha initially elected to include strategic IT functions in the scope of outsourcing to Delta and lost key skilled staff. With the loss of key expertise Alpha was dependent on Delta for the provision of services and expertise for almost half of its business applications. Staff involved with the billing and financial systems were selected on the same basis, although the depth of functions outsourced was less. However, some functions that went to Delta as a result of the first wave, for example, the IT architecture functions, were re-established in-house by Alpha in the second wave, with recruitment of necessary skilled staff.

The third wave resulted in the outsourcing being sent offshore and this reflects the maturity of both the outsource market and Alpha corporation. Alpha had restructured its in-house capability and aligned its IT process with what is now global outsourcing practice. But it remains to be seen how well the third wave of outsourcing will work in the longer term. There are some issues:

- There are continuing strong market pressures for cost reduction by Alpha. The offshore companies are currently very profitable, high margin suppliers, and this fact is understood by Alpha. Offshore

IT labour prices are expected to rise, and current tax breaks in India have a sunset. There will inevitably be future robust negotiations around price.

- There is an expectation by Alpha that the outsource providers will deliver low cost IT solutions, including new systems, however the onshore component of these services are provided at Australian onshore market rates. There are clear technology trends to the use of off-the-shelf enterprise software, which has much lower maintenance effort, but requiring high business process integration effort. This reduces the need for offshore IT labour, weakens the cost justification of the global model, and opens niche competitive opportunity for onshore local IT service providers.
- The impact of cultural differences between Alpha and offshore service providers remains to be seen. Indian companies in particular have access to employees with good English language skills. This creates an initial impression of cultural alignment, however, the underlying culture and belief systems can be completely alien to Western norms (Nicholson and Sahay 2001).

8.1 Additional success factors

The seven key success factors identified in the literature also came through as issues in the Alpha case, but five additional factors were identified as important yet not given much attention in the literature.

1.) Type of outsourcing partner arrangement

The linkage of the outsourcing contract to joint business development created a tension of interest within Alpha between the IT cost centre, and the sales revenue. The overall net value of the deal to Alpha is difficult to determine, as a normal sales partnering agreement may have had the same effect. Linking the purchase of a business input - IT services - with product sales/revenue was problematic. There was an underlying conflict of interest when the two parties contracted together for low cost inputs and high margin sales.

Alpha's contract with Delta included the transition costs and other ongoing outsourcing liabilities in an engineered financial construct which included price premiums, revenue guarantees and unrelated obligations such as joint business activities. Once the outsource agreement was in place, and the negotiators gone, the rationale for the pricing was forgotten when the contract was put to market price scrutiny by the incoming accountable managers. Alpha may have been better off paying out the staff termination costs at once, or over a short period of time, and with no contracted compensating conditions such as minimum revenue levels over the term of the agreement.

2.) Outsourcing vendor capabilities

Sigma was keen to expand their business and take on more work with Alpha. The initial contract with Sigma was to provide simple outsourcing work for the ERP/financials system. Sigma however sought to extend this to applications that were at the time new and immature: middleware, and the CRM platform. Although the new scope of work was close to Sigma's core consulting competencies, it included new systems which were not entirely stable, and still subject to significant functional change. This was a high risk strategy because such work required highly skilled IT professional staff to manage and implement the systems. Sigma had difficulty providing the resources and skills to meet the demand and at the price point negotiated in the outsourcing agreement. The arrangement eventually failed as Sigma ran into problems of time, cost and quality.

3.) Changing business environment

Both Epsilon and Sigma ran into immediate problems with the outsource relationship for an unexpected reason. The level of business (the "baseline" of activity) which was used in the tender for costing and pricing by Epsilon and Sigma, was the pre-existing staffing within Alpha. When Alpha implemented its new decentralised IT accountabilities for ordering IT services, there was significantly lower demand for services. The volume of work ordered dropped by about one third.

Alpha had agreed minimum revenue levels for Epsilon and Sigma in view of the staff commitments taken on by each company, but these only applied in the short term, and both suppliers were

overstaffed. There was pressure on the suppliers to control costs due to this underutilization, leading to staff reductions through redundancies, and the use of lower cost, low level personnel. This caused service and quality issues, and led to dissatisfaction with the outsource suppliers by Alpha's business units, similar to their experience with Delta.

Outsourcing was a relatively new business for Sigma, and Alpha was the dominant customer. When Alpha reduced the level of work orders Sigma was initially better off, having expanded its scope of work into the new platforms (see above) and this compensated for the reduction in the ordering of services. However, the significant fall in demand for ERP services left Sigma with high numbers of staff unable to be re-deployed. This left Sigma heavily exposed to the loss of scale, in both financial and client relationship terms.

4.) *Managing service demand*

Alpha's business units were given budget accountability as part of the second wave, and became more discerning in ordering new work. The contracts were negotiated based on historical work levels so when the levels of orders dropped, both Sigma and Epsilon were overstaffed, and lost money. The underlying demand for services was not understood by Alpha; demand was much less than expected, and this caused dysfunctional behaviour by the outsource providers. From Alpha's viewpoint the cost reduction objectives had been met and exceeded but this was not so much from price reduction it was from the reduced demand for services. This situation required significant management, including relationship management, by all parties. No one was really happy.

The contract agreement provided for changes in work demand, but Alpha potentially had to pay penalties for lower levels of work. Managing costs in this situation was complex for Alpha: it required ensuring sufficient work was being ordered from each of Sigma and Epsilon to avoid penalties, and at the same time ensuring the work was needed.

5.) *Managing new systems work outside the contract*

As an outcome of the initial outsourcing to Delta, Alpha's response to perceived poor quality and high cost was to avoid giving new systems development work to Delta, preferring to tender into the external systems integration market. Accordingly, Delta's competitors developed niche capability to compete and beat Delta for the higher margin new systems development work. Delta won very few tenders for new systems work in the period from 1997 to 2003.

Alpha got this part of the Delta relationship right. Outsourcing is low margin delivery of low risk, high volume IT commodity services such as applications enhancement and maintenance. For delivery of new systems, a risk managed project construct should be used, and the costs will be greater: higher grade personnel are required, at higher cost, and there will be a price premium for risk. Alpha used competitive processes (tendering) to select suppliers and to negotiate delivery terms for new systems development. Such processes are essential to achieve a balance of outcomes (particularly the management and pricing of the risk) between customer and service provider.

Table 2 summarises the outcome of the analysis of the Alpha case study against the current thinking.

Current thinking	Alpha Experience
<i>Outsourcing reasons</i>	<i>Outsourcing reasons for Alpha</i>
Cost reductions	Cost reduction
Improved business performance	
Commercial exploitation	
<i>Outsourcing success factors</i>	<i>Additional outsourcing success factors</i>
Selecting carefully what is to be outsourced	Type of outsourcing partner arrangement
Involvement of both business and IT executives in the outsourcing decision making process	Outsourcing vendor capabilities
Understanding and managing all the costs	Changing business environment
The length of the contract	Managing service demand
Need for detailed contracts with some level of flexibility	Managing new systems work outside the contract

Managing the relationships that are developed between the business and the outsourcing company	
Careful selection of people and skills of those retained	

Table 2 Findings from the Alpha case study

9. CONCLUSIONS

Outsourcing is widely seen as a key business strategy and is increasingly being used in IT. Of the three key reasons for outsourcing identified in the literature, described in Table 2, only one, *cost reduction* applied in the case of Alpha. But as the case of Alpha shows, even experienced, large corporations where IT is critical to their success, have difficulties in achieving successful outsourcing. The standard seven factors commonly thought to be necessary for success were insufficient for Alpha. Indeed, five other factors were necessary. Thus the key success factors identified in the literature are necessary but not sufficient conditions for success. To this list, we would add Alpha's five factors. Whilst we can not guarantee that these twelve factors will lead to outsourcing success in all cases, we believe these new factors offer a more complete range of issues which organizations will need to consider for achieving outsourcing success.

Although these twelve success factors should help organizations better understand outsourcing, we would like to conclude with what we think may be the critical issue, *viz.* carefully selecting what is to be outsourced. For a function to be successfully outsourced, it must be:

- Not excessively complex nor strategically critical to the business
- Well understood and under management control before outsourcing
- Available in an external competitive market at a competitive price.

Whilst these rules seem obvious, it is surprising how often they are violated in practice. We have seen many organizations outsource pieces of the IT portfolio which were strategic assuming that vendors were 'partners' who would share their business strategy, IT expertise, and offer IT strategic direction to the client. Such 'partnering' has typically been problematic as the Alpha case shows (e.g. the JV). For a business function to be successfully outsourced it has to be routinely performed, and be a non-core, non-strategic function, for which there are external companies that can perform the function better through specialization, or cheaper, through economies of scale and portfolio effects. For example, service functions such as infrastructure that can be moved to a 'factory' delivery model, are classic outsourcing candidate functions.

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