

# IT Outsourcing Contracts: Practical Issues for Management

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## *Abstract*

A good contract is often the key to a successful IT outsourcing relationship. The contract defines the rights, liability, and expectations of both the outsourcing vendor and the outsourcing customer concerned and is often the only solid mechanism for regulating the relationship of the parties. Outsourcing contracts are often of high value and last a relatively long time. It is therefore of particular importance to get them right first time. Research on IT outsourcing contractual issues tends to be mostly theoretical and very limited in scope. There is relatively little literature available on the systematic and practical treatment of issues relating to IT outsourcing contracts. Lacity and Hirschheim's seminal work (1993) represents a major step in that direction, offering important lessons learnt in contract negotiation. This article builds further on that direction by presenting a practical and systematic overview of some key IT outsourcing contractual issues, exploring and highlighting management implications where appropriate. Issues such as service level, transfer of assets, staffing, pricing and payment, warranty and liability, dispute resolution mechanism, termination, intellectual property matters, and information security are discussed in this article. Practical advice on pre-contractual negotiation and post-contractual management is also given. By discussing these issues systematically from a management and practical perspective, this article contributes to bridging the gap between theory and practice and offers useful information to management considering IT outsourcing.

## 1. INTRODUCTION

Information Technology (IT) outsourcing is the subcontracting of a part or all of the IT function of a company to an external outsourcing vendor [1]. The degree of subcontracting involved varies across the whole spectrum ranging from just one part of the IT function (such as equipment maintenance) to the wholesale outsourcing of an entire IT department [3]. Attracted by the desire to continuously cut cost and improve performance, IT outsourcing has gained tremendous momentum in the past few years. Corporations in North America have led the way so far, with the largest IT outsourcing market in the world worth tens of billions of dollars. Meanwhile, leading US outsourcing vendors are entering the European market in strength, with EDS's bold takeover of SD/Scicon in Europe during 1991 [10] marking a major milestone in that direction. The trend is expected to spread to the economically booming Asia-Pacific region soon. In 1991 alone, the average value of an IT outsourcing contract was in the region of US\$500 million, while a couple of contracts exceeded the US\$2 billion mark [10]. The significance of IT outsourcing cannot be over-estimated. Indeed, IT outsourcing has been identified by Clark [2] as one of the six most important strategic management issues confronting organizations in their management of corporate systems.

Contrary to popular belief that IT outsourcing is in the nature of partnership and strategic alliances [6], Lacity and Hirschheim [8] have exposed this as an outsourcing "myth". Outsourcing vendors do not share the same profit motives as their outsourcing customers. A tight contract is the only mechanism to ensure that expectations of the outsourcing customer are met. Outsourcing customers researched by Lacity and Hirschheim [8] all agreed that the contract was the number one key issue to a successful outsourcing relationship. Research on IT outsourcing

contractual issues tend to be mostly theoretical and very limited in scope. For example, Whang [14] analysed software development contracts using a game-theoretic model incorporating information and incentive issues but conceded that the model, though mathematically neat, would have very limited practical applicability. Richmond and Seidman [13] also analysed software development contracts but used a transaction cost modelling framework instead. There is relatively little literature available on the systematic and practical treatment of issues relating to IT outsourcing contracts. Lacity and Hirschheim's seminal work [8] represents a major step in that direction, offering important lessons learnt in contract negotiation. This article builds further on that direction by presenting a practical and systematic overview of some key IT outsourcing contractual issues (including some of the often neglected but yet important issues such as information security and intellectual property ownership), exploring and highlighting management implications where appropriate. Practical advice on pre-contractual negotiation and post-contractual management is given at the end of the article.

## **2. TYPES OF IT OUTSOURCING CONTRACTS**

IT outsourcing contracts fall into many different types, depending on the level of internalization of human resources and technical resources chosen. Loh and Venkatraman [9] have identified many alternative types of which three are particularly popular. These types of contracts relate to complete outsourcing, facility management outsourcing, and systems integration outsourcing respectively. Characterization of these types of outsourcing in comparison with complete in-house operation along the dimensions of the internalization of human and technical resources is depicted in Figure 1.

Complete outsourcing involves the transfer of the entire IT function of a company, together with existing IT assets (such as equipment and software) and personnel, from the outsourcing company to the outsourcing vendor. This represents one extreme of the outsourcing spectrum where the whole IT function of a company is treated as a market commodity. Contracts for this type of outsourcing are usually voluminous and complicated, involving a whole range of assets and related legal issues, and are usually long term (i.e. 5 to 10 years) in nature. The outsourcing vendor in this case assumes all the risks and responsibilities of providing the outsourcing customer with its IT function on a long term basis. The degree of internalization of human and technical resources is very low for outsourcing of this type.

Facility management involves the outsourcing vendor providing the human resources necessary to operate and manage the outsourcing customer's equipment and software. The internalization of technical resources is still very high. Facility management outsourcing was particularly popular in the late 1980s when there was an acute shortage of competent IT staff necessary to manage and operate data centres. For facility management outsourcing, the internalization of technical resources is high while there is a low internalization of human resources.

Systems integration outsourcing usually involves the contracting of a single outsourcing vendor whose role is to manage the installation and operation of the outsourcing company's multi-vendor heterogeneous IT systems in such a way that these systems are integrated and can link with IT systems in other organizations. As the trend in adopting Open Systems Standards is gathering momentum and inter-connectivity among different organizational IT systems is turning into a key issue, this type of outsourcing is becoming increasingly popular. The level of

internalization of human and technical resources is medium for this type of outsourcing.

Other types of IT outsourcing include maintenance contracts, installation/procurement contracts, rental contracts, applications development contracts, and time-sharing contracts. However, more recently, contracts for education and training, telecommunication and networking management, and support for end-user-computing are also becoming popular [4] as companies move towards down-sizing, distributed computing, and end-user computing.

### **3. CONTRACTUAL ISSUES**

Common to most types of outsourcing contracts is the passing of one or more IT management and/or operational responsibilities from an in-house IT department to an outsourcing vendor through a contract. Outsourcing contracts involve complicated business and legal issues and are fraught with risks for both the outsourcing customer and the outsourcing vendor. As pointed out by Lacity and Hirschheim [8], outsourcing vendors and outsourcing customers are not partners because their profit motives are not shared. An outsourcing customer cannot expect the outsourcing vendor to act in the best interests of the customer in situations where a conflict of interest arises. The written outsourcing contract is therefore the most important instrument for defining the rights, liabilities and expectations of both parties which guides the behaviours of both parties concerned. Thus, it is important for management to have some understanding of the complicated business and legal issues involved in IT outsourcing and have some awareness of how these issues should be addressed in the contracts concerned.

An outsourcing contract often includes a collection of related agreements covering a variety of issues such as service level, transfer of assets, staffing, pricing and payment, warranty and liability, dispute resolution mechanism, termination, intellectual property matters, and information security. These issues are explored in the following sections.

### ***3.1 Service Level***

The service level agreement should describe in precise terms the types, scope, and nature of all the services required, the times when these services should be available, and the level of performance (e.g. throughput rate, turnaround time, system availability, etc.) required. The service level agreement should also include provisions enabling the outsourcing customer to measure the outsourcing vendor's contract performance through regular progress meetings and reports. Contractual provisions should be included to penalise the outsourcing vendor financially (e.g. in the form of liquidated damages) if at any time the vendor delivers a level of service which does not meet with the requirements in the contract. To minimise the chances of future dispute (which could be very costly to the outsourcing customer), the service level agreement should be as comprehensive as possible, including every possible detail, no matter how seemingly trivial or minute.

### ***3.2 Transfer of Assets***

In order for the outsourcing vendor to perform its services, various IT assets of the outsourcing customer may need to be transferred to the outsourcing vendor. This transfer of assets is dealt with by a sale agreement whereby the IT assets in question are formally transferred to the outsourcing vendor. Independent valuation

of these assets may be needed. Assets for such a transfer typically include computer hardware and telecommunications equipment, software licences, leases on equipment, contracts for telecommunication circuits, and various equipment maintenance contracts. For the assignment of leases and contracts from the outsourcing customer to the outsourcing vendor, the consent of third parties may be required. In some cases, a third party will not give consent to an assignment without the payment of a substantial amount of extra fee. This is particularly so in the case of software licenses where most software suppliers tend to treat an assignment in the same way as the granting of a new license and thus will demand the payment of the full licensing fee which may be a substantial amount. It is therefore important to ascertain in the transfer of assets agreement the allocation of costs involved in carrying out the necessary transfer of assets. In some countries (such as the UK) transfer of assets may be taxed (such as VAT) and attract stamp duty. Again, this hidden cost of the assets transfer agreement has to be taken into account in the overall outsourcing consideration.

### ***3.3 Transfer of Staff***

A common feature of many outsourcing arrangements is the transfer of staff from the outsourcing company to the outsourcing vendor. In some countries (such as the UK), labour regulations (such as the Transfer of Undertaking (Protection of Employment) Regulations 1981 and section 33(1) of the Trade Union Reform and Employment Rights Act 1993 in the UK) require elaborate procedures to be completed before the staff transfer can take place and that their existing terms of services be guaranteed in the transfer. Since the outsourcing vendor, who is obliged to take on the transferred employees, will have to pay the same staff costs and

these costs will most probably be passed on to the outsourcing customer in the negotiation of pricing the outsourcing contract, the net saving of staff costs expected in an outsourcing arrangement of this sort may therefore be difficult to realize. For complete outsourcing involving the wholesale transfer of an in-house IT function to an outsourcing vendor, the UK situation is that the above regulations are likely to apply (*Kenny v South Manchester College*, 1993). It is, however, not clear whether the above regulations will apply in the UK for limited outsourcing arrangements involving only a part of the IT function of the customer. On the other hand, if the outsourcing vendor takes on new staff to work on the outsourcing contract, the outsourcing customer may want to have a say in the personnel selection process to ensure quality and suitability. Also, it may be desirable to ensure the continuity of some key team members who will service the outsourcing contract, and that changes in these key team members should not be made without first consulting the outsourcing customer. Provisions thus have to be made in the contract to accomplish these requirements.

### ***3.4 Pricing and Payment Terms***

Agreement on pricing, payment terms and schedules is a very critical part of the overall outsourcing arrangement since most outsourcing agreements are fairly long-term in nature, lasting as long as 10 years. When, how and to whom payments should be made, and the amounts and structure of payments involved, can all be complicated issues because an outsourcing arrangement is a sophisticated business deal which may involve third parties such as equipment and software licensors and so forth. It is particularly important to ensure that the price agreed covers all the services required and that there should be an absolute cap on the total amount of fees payable in all circumstances. Since the cost of technology is

diminishing on virtually a day-to-day basis, and the outsourcing customer's IT demands may also change in time in response to market dynamics, it is advantageous to include in the agreement a mechanism for (downward) price and payment re-negotiation at a frequency of, say, once every two years. The chances are that the same level of service can be obtained more cheaply in two years time because of the inevitable drop in technology price/performance ratios. Such a provision will help the outsourcing company avoid a situation where an outsourcing deal appears attractive in the beginning but two years down the road becomes extremely expensive and the outsourcing company has no way of getting out of it.

### ***3.5 Warranty and Liability***

The breach of a term of agreement by the outsourcing vendor in relation to service level will give grounds for the outsourcing customer to sue for damages. However, litigation for contract damages is often expensive, time consuming and involves a good deal of uncertainty. From the outsourcing customer's point of view, it is far better and more convenient if express warranty is written into the agreement for the vendor to indemnify the company for any losses, costs, and liabilities arising from the vendor's breach of contract. For large companies (such as airline and financial brokerage companies), losses (including opportunity cost) from even a temporary cessation of their IT function may be very substantial. It is therefore important to ensure that these losses are recoverable by explicitly providing for them in the contract.

### **3.6 Dispute Resolution and Termination**

Outsourcing often involves large sums of money and complicated issues over a long contract period. Dispute is therefore not uncommon in the course of performing the contractual obligations. Instead of resorting to expensive and time consuming legal action every time there is a dispute, proper mechanisms should be built into the outsourcing agreement for dispute resolution through an independent third party (such as an arbitrator). In cases where arbitration does not work and the contract must be terminated, the consequences of termination must be taken into account and appropriate provisions made in the outsourcing contract. In particular, these provisions should cover issues such as:

- (a) buy back arrangements for equipment and software and a formula for price determination;
- (b) transfer of relevant third party contracts and leases (such as maintenance contracts);
- (c) transfer of data and know-how;
- (d) transfer of staff; and
- (e) guarantee by the vendor to assist and co-operate in a smooth handover of the IT function.

There should also be explicit agreement in relation to the termination of services in cases where service levels are not met or when the vendor goes into liquidation, etc. It is particularly important that these issues are spelt out in the agreement because the relationship between the outsourcing customer and the vendor is likely to be tense in termination cases and voluntary assistance based on an assumption of goodwill cannot be relied on.

### ***3.7 Ownership of Intellectual Property Rights***

There should also be agreement on the ownership of intellectual property rights (such as copyright, patents, etc.) arising from outsourcing activities. Work which may attract intellectual property rights includes data, software programs, manuals and other written documents. The outsourcing customer should insist that intellectual property produced by the vendor in servicing the customer should belong to the customer. If the outsourcing customer does not own source code then provisions should be made to give the outsourcing customer access to source code if modifications are needed in the future, or if the agreement is terminated. It is important to ensure that the customer retain full potential control and ownership of its information assets, so that if problems arise in the outsourcing relationship the customer can quickly regain actual control of its information assets and its operations will not be paralysed. This provision safeguards the interests of the outsourcing customer in case of a breakdown in the relationship. This also puts the outsourcing customer in a stronger position in any future contract re-negotiation.

### ***3.8 Information Security and Confidentiality***

As noted by Fink [5], information security is an area often neglected in outsourcing arrangements. Information security covers both data security and business recovery planning. The former aims at ensuring the integrity and privacy of data owned by the company while the latter aims at measures which ensure the rapid restoration of normal business operations after the occurrence of an IT related problem (such as a sudden outage of the IT function, or the destruction of data, or the infliction of computer viruses, etc.). While information security is under the outsourcing customer's control when the IT function is provided in-house, when IT is outsourced

the customer can no longer retain full control of information security. Information security is an integral part of all outsourcing activities and it is important for the outsourcing company to reach agreement with the vendor as regards what type and what level of information security will be provided by the vendor in relation to the outsourced activities. Even though the outsourcing customer may rely on service level warranty to sue the vendor for damages when problems occur, it is much preferred to ensure that preventive measures are put in place by the vendor in the first place to reduce the level of risk involved. With substantial claims for damages, the vendor can simply go bankrupt and damages may never be recovered. The vendor may want to take the risk of bankruptcy but the outsourcing customer may not.

Since the outsourcing vendor in many cases will have access to the outsourcing customer's data which may be commercially sensitive, it is of crucial importance to ensure confidentiality is respected (both during the contracting period and after termination) by making express provisions to that effect in the agreement. In particular, if the same outsourcing vendor is working for two or more competing outsourcing customers in the same industry, extra caution must be taken to ensure that confidentiality is not compromised. The outsourcing customer may want to be assured contractually that the outsourcing vendor has in place a proper system of operational safeguards for ensuring confidentiality.

## **4. NEGOTIATION AND MANAGEMENT**

### ***4.1 Pre-contract Negotiation***

Before negotiation takes place, the outsourcing company must have a clear view as to exactly what part of the IT function it wants to outsource. Outsourcing

arrangements take a considerable time to negotiate, and once implemented, will be difficult to unscramble without incurring a substantial amount of extra costs [11]. Practical techniques such as the analytical hierarchy process [12] may help management in the decision making process. Apart from the key issue of what part of the IT function to outsource, there are also many other important related issues (such as those discussed in the previous sections) to consider. It is important to resolve these issues in the minds of the management before negotiation starts so that a more proactive stance can be taken during negotiations. Such a proactive stance can enhance the bargaining position of the outsourcing customer and help to arrive at terms more favourable to the outsourcing customer. As negotiation can be complex and time consuming, it is always more advantageous to negotiate around a checklist of principles rather than get bogged down by the technicalities of draft contracts in the initial stages. From the checklist a skeleton contract may result after the first few rounds of negotiations. The skeleton contract will in turn lead to the final fully-fledged contract. As complicated legal issues may be involved in the negotiation, it is advisable to draft in the assistance of an experienced legal advisor in the negotiation process, particularly in the second half of the negotiation process when detailed issues are discussed. Obviously, for complex outsourcing deals involving significant sums of money, the vendor's standard form contracts must never be used, even as a starting point, because they are always drafted in favour of the outsourcing vendor.

In the process of negotiating large outsourcing contracts, vast quantities of paper (such as letters, draft contracts, meeting notes, etc.) will move between the parties concerned and their legal advisors at a high rate, with many people writing their comments on the document every step of the way. This is particularly so if an

outsourcing company is negotiating with more than one potential outsourcing vendor at the same time. It is therefore of critical importance that document flows are managed effectively to minimise any chance of confusion. A proper system for document version control is particularly important in this aspect.

#### ***4.2 Post-contract Management***

The written contract is the result of many days of hard negotiations and is the only definitive means of defining the relationships of the parties concerned in an outsourcing deal. A tight contract is the key to a successful relationship while a loosely worded one is often a recipe for disaster [11]. If a well drafted contract is in place its effective management should not be too difficult because the necessary mechanisms should have been built into the contract. The outsourcing customer should assign the contract management responsibility to managers who understand the services provided by the outsourcing vendor. They will have to deal with routine measurement of the vendor's service level against contractual requirements, handle change requests and payments, and assume the overall responsibility of ensuring the services provided by the vendor are of an acceptable quality. In many cases, the IS function is critical to a company and a direct communication channel should exist between top management and the managers dealing with post-contract management so that problems detected in contract performance are communicated to senior management in a quick and efficient manner.

## **5. CONCLUSION**

The momentum for IT outsourcing is becoming almost unstoppable and the stakes are high. This appears to be an inevitable trend as user firms are increasingly viewing IT not so much as a direct competitive weapon but rather a mere tool for enabling and supporting core business activities. A successful IT outsourcing relationship can help the outsourcing customer to achieve major benefits such as cost-savings, increased flexibility, better quality of services and access to new technology. On the other hand, a poorly assembled arrangement may turn out to be very costly to the outsourcing customer in terms of higher than expected outsourcing bills, loss of control over quality and level of services, compromised information security and poor staff morale. The potential dangers are particularly acute for long term outsourcing contracts. As the outsourcing contract represents a key mechanism for ensuring a successful contractual relationship between the vendor and the customer, it is important for management to be aware of the main issues involved. Issues such as service level, transfer of assets, staffing, pricing and payment, warranty and liability, dispute resolution mechanism, termination, intellectual property matters, and information security have been discussed in this article. Related issues on contract negotiation and management are also explored. By discussing these issues systematically from a management and practical perspective, this article contributes to bridging the gap between theory and practice and seeks to offer useful information to management considering IT outsourcing.

## 6. REFERENCES

1. Altinkemer, K., Chaturvedi, A. and Gulati, R., (1994) Information Systems Outsourcing: Issues and Evidence, *International Journal of Information Management*, **14**, 4, 252-268.
2. Clark, T.D., (1992) Corporate Systems Management: An Overview and Research Perspective, *Communications of the ACM*, **35**, 2, 61-75.
3. Coale, K., (1992) British Petroleum Outsources I.S., *InforWorld*, **14**, 5, 47.
4. Collins, J.S. and Millen R.A., (1995) Information Systems Outsourcing by Large American Industrial Firms: Choices and Impacts, *Information Resources Management Journal*, **8**, 1, 5-13.
5. Fink, D., (1994) A Security Framework for Information Systems Outsourcing, *Information Management & Computer Security*, **2**, 4, 3-8.
6. Huff, S.L., (1991) Outsourcing of Information Services, *Business Quarterly*, Spring, 62-65.
7. Kenny v South Manchester College (1993), *IRLR* 265.
8. Lacity, M. and Hirschheim, R., (1993) The Information systems Outsourcing Bandwagon, *Sloan Management Review*, **35**, 1, 73-86.
9. Loh, L. and Venkatraman, N., (1991) 'Outsourcing' as a Mechanism of Information Technology Governance: A Test of Alternative Diffusion Models, *Working Paper* No. BPS3271-91, Massachusetts Institute of Technology, Alfred P. Sloan School of Management, Cambridge.
10. Margolis, N., (1992) Outsourcing Boom Over? You Ain't Seen Nothn' Yet, *Computerworld*, **26**, 2, 8.
11. New Wrinkles in IS Outsourcing (1993), *I/S Analyzer*, **31**, 9, 1-18.
12. Putrus, R., (1992) Outsourcing Analysis and Justification Using AHP, *Information Strategy: The Executive's Journal*, Fall, 31-36.
13. Richmond W.B. and Seidman, A., (1991) Outsourcing and Contractual Issues in the Systems Development Life, *Working Paper*, William E. Simon Graduate School of Business Administration, University of Rochester, NY.
14. Whang, S., (1992) Contracting for Software Development, *Management Science*, **38**, 2, 307-324.

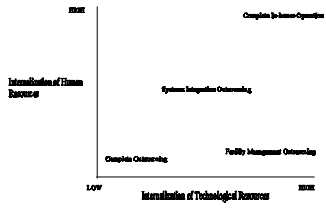


Fig. 1. Mapping of Alternative Types of Outsourcing (adapted from Leh and Venkatraman, 1991)