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Issues in Offshore Outsourcing of IT Development

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Abstract

Offshore outsourcing of IT development can be a viable way to reduce cost or staff demand peaks. However, a number of factors should be considered before embarking on an offshore IT development project. This whitepaper discusses the following factors:

- Language
- Travel Costs
- Communications Reliability and Costs
- Cultural Differences
- Quality and Maintainability
- Security

Disclaimer (The lawyers make me do this)

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Introduction

There seems little doubt in the minds of IT managers and CFOs of Application Development Companies: offshore outsourcing of software development can produce significant cost savings and advantages. At the same time, there are issues to consider to ensure that the outsourcing experience is a successful one. This paper describes some of the advantages of offshore outsourcing of IT development, goes on to highlight some of the issues which need to be taken into account, and suggests steps which can be taken when setting up the outsourcing framework, to address these issues.

The Advantages of Offshore Outsourcing of IT Development

Offshore Outsourcing of IT has been prevalent for a number of years, with US-based companies being the largest customer-base, and using development houses in a number of countries, including India, Pakistan, and the Middle East.

Improved Cost Base

The primary motivation for sending software development offshore is cost. Asian off-shore outsourcing suppliers can offer software engineers at about half the rate of an Australian company's software department internal rates[i]. When compared with rates charged by 'Professional Services' consulting firms or even some of the higher-paid contractors, the savings approximately treble, with offshore outsource companies offering rates about a quarter of the large consulting firms. For US-based companies, the case is even more compelling.

The cost savings realised can be used as a competitive advantage, as the firm channels the saved funds into:

- Increasing the time to market (by increasing the offshore development team size, hence increasing the speed of product development)
- Increasing the amount of products developed,
- Increasing the Marketing, Sales and Promotions exercises of its products

These three areas result in an increase in revenue. The fourth channel that the saved funds are directed to is the shareholders' pockets, through increased dividends or other returns.

Better Predictability

The second largest motive for offshore outsourcing of IT development is to allow the local company to plan its Human Resource requirements. IT development is very much a project-based industry. This project focus results in peaks and troughs in resource requirements. The long sales cycles for large-scale solutions associated with some industries such as telecommunications exacerbate the situation, to the point where demand is notoriously 'lumpy'.

Staffing is certainly not considered a fixed cost, but not 'variable' either. Rather, it falls into the category of 'sticky down'. That is, it can be increased fairly rapidly, although companies often trip up if their recruitment process is not well-managed with appropriate and well practiced initiation processes. The even more difficult part, however, is in decreasing staffing levels. Retrenchments during times of low demand or economic downturn affect the morale and hence innovative spirit of an IT company profoundly. Often these adjustments are seen by the company's most prized staff as signals that the ship is sinking, so the staff that the company needs to retain to ride out the storm, instead jump ship. Apart from the morale issues, retrenching staff is always a costly exercise, with HR Directors increasingly having to deal with issues such as the controversial section 106 of the Industrial Relations Act 1996 (NSW)[ii].

Offshore IT Outsourcing may alleviate the issues associated with the 'lumpy' staffing profile.

Staff Development

Some Australian companies have reported an advantage perceived by staff that there is increased opportunity for development and professional growth[iii]. Rather than spending the bulk of their time coding and testing, the staff have the opportunity to advance to roles with an increased 'Designer' or 'Architect' focus, or, for those with a flair for customer, supplier and team management, roles with an increased 'Project Management' focus. With more spend on marketing and sales, there are also more opportunities for roles in the pre-sales areas of the business.

The Issues to Consider

While the advantages look compelling, there are things which can go wrong. The available case studies and academic literature tend to suggest that none of the issues are insurmountable. However, it is important to consider them early when establishing an offshore outsource development project, and important to put in place mechanisms to address these issues before the start of the engagement with the outsource supplier.

Language	It is important to select an outsource partner that you can communicate effectively with. A combination of two approaches is suggested: • It is vital to select an outsource partner with a local presence. In some models, the local office may supply the Solution Architects and Project Managers, ensuring that requirements are well understood at the start of the project, and that any concerns or issues which arise during the course of the project are dealt with swiftly. • Select an outsource partner with technical staff who are fluent in English and communicate with your staff at a technical level
Travel Costs	A successful outsource experience relies on close communications and co-operation between the client's technical staff and the outsource company. One of the best ways to establish this communications, and also ensure a good interpersonal relationship between the combined project team, is face to face communications. Regular visits should be factored in to the project estimate, to allow the client's technical staff to meet with the development team. Issues such as the distance to the outsource country, ease of obtaining visas, and comfort issues such as the effect the local food might have on visiting staff, should all be considered.
Communications Reliability and Costs	Communications is important to maintain regular status information, and to adjust the project direction if required. In an IT outsourcing arrangement, communications is even more important, as technical requirements, sample data, and access to test environments are often effected electronically. It is important to select a country with a high quality telecommunications infrastructure. Following the Sept 11 terrorist events, some writers have suggested that redundancy be built into the communications link between the client and the outsource provider, for critical projects.
Cultural Differences	It is important to analyse the issue of 'cultural differences' from a gut-feel as well as an analytical perspective. From a gut feel perspective, people who enjoy working together will generally work well together. Select an offshore outsource supplier in a country where the culture forms a good match with your team's, and, for large-scale assignments, schedule joint team-

	building exercises into the project plan. Looking at the issue analytically, the most common areas of contention stem from mismatches in the expectations relating to the 'flexibility vs strict change-control' trade-off and the 'quality process vs expediency' trade-off. Often one party is on one end of the continuum for one of these trade-offs, with the other party closer to the other end. It is important that the expectations on both these issues are discussed and agreed prior to commencement of the outsourcing assignment.
Quality and Maintainability	One of the pet hates of most CIOs is the problem of 'home-grown', undocumented, unsupportable applications. Such applications create the situation of a 'hero' within the organisation who is the only person who can maintain the application. Offshore outsourcing may in fact go some way to ensuring that such situations don't occur, because the system is being developed by a group external to the company, and not the 'hero'. It is important to consider the documentation requirements and agree these with the outsource supplier before starting the project. Beyond documentation, it is also important to select an outsource supplier who understands the quality level you require, whose team has a culture of delivering within such a quality regime, and who has proven that they can do so.
Security	Following the recent spate of international terrorism and the Middle East conflict, there has been increased emphasis placed on security as a decision factor when evaluating possible outsource partners. India and Pakistan have come under the spotlight, as possible areas of concern[iv], [v]. Attention should be given to the amount of time spent in the air and in politically unstable countries, particularly for employees of US Multinationals. When selecting an offshore IT outsource partner, another security factor to be considered is the potential for source code to get into the wrong hands, or the danger that developers might write back-door access points into the application. To counter this concern, select an offshore outsourcer in a country which does not have a culture of software piracy. Obtain reference checks, and if appropriate, schedule code reviews and walk-throughs as part of the project plan.

Summary

The benefits of offshore outsourcing of IT development cannot be understated. It provides an improved cost base, freeing up funds for faster development of products, development of more products, and increased marketing spend, all working together to improve the company's total returns to shareholders. It also allows companies to manage their staffing profile in a more predictable manner, providing improved opportunities for staff progressing and reducing the morale-sapping retrenchments which inevitably happen due to the cyclical nature of business and IT.

While these benefits are significant, there are pitfalls for the unweary. In most cases these pitfalls can be avoided with careful selection of an appropriate matching off-shore outsourcing partner, with pre-project discussions to ensure the outsource supplier understands the customer's needs, and with appropriate project planning.

The issues to be considered fall into five general categories: Language, Travel Costs, Communications Reliability and Costs, Cultural Differences, Quality and Maintainability.

In some circumstances, where the risks associated with these pitfalls are considered unacceptable and not able to be mitigated, off-shore outsourcing may not be appropriate.

References

[i] Beagle internal calculations, based on published permanent employee salaries in Australia, and taking into account Annual leave, Public Holidays, training as part of ongoing professional development, 10% underutilization during slack periods, workstations, accommodation, phone, annual leave, superannuation, recruitment agent fees, etc

[ii] www.lawlink.nsw.gov.au/caselaw/caselaw.nsf/pages/irc - Lawlink's Database for searching NSW Industrial Relations Commission Cases

[iii] Beagle independent research, April, 2002

[iv] Field, T, How to Adapt Your Offshore Strategy to an Insecure World, CIO Magazine, 1 Jan 2002

[v] Cirillo, R, 'Testing the Viability of Offshore Outsourcing', VARbusiness; 3 Oct, 2001