

Exploring research-derived best practices for effective management of global software teams.

# MANAGING CROSS-CULTURAL ISSUES IN GLOBAL SOFTWARE OUTSOURCING

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IT outsourcing continues to be a booming business. The reasons why companies choose to outsource have been well-documented, including reduced cost, improved performance, and access to wider labor markets [1, 4]. One aspect of IT outsourcing is the outsourcing of software production. An important trend that started in the 1990s and continues to increase today is to outsource software production globally [9]. Much of the software development takes place at offshore locations, where costs are low and labor is often plentiful. Software suppliers normally maintain small bridgehead teams in the client countries for sales and customer liaison purposes. Outsourcers in turn often locate executives in the supplier countries to, for example, oversee large projects.

ILLUSTRATION BY TOMASZ WALENTA



All of this makes good economic sense for both sides of a cross-border outsourcing relationship, but it raises the question of how best to manage the process. In particular, cross-cultural issues are likely to become an important factor, as they have in the management of international joint ventures [2]. We have been investigating such issues over a five-year period, primarily through in-depth case studies, and with a particular empirical focus on outsourcers in North America, Western Europe, and Japan to software suppliers in India.<sup>1</sup> The primary conclusion from our research is that working across cultures when outsourcing software production is not a trouble-free process [10]. Particular societies tend to have distinct ways of working, and they can prove problematic when attempting cross-border collaboration. For example, Indian software companies have found they need to approach communication with U.S. and Japanese clients in very different ways. U.S. client companies normally work with extensive written agreements and explicit documentation, reinforced with frequent and informal telephone and email contact. In contrast, Japanese clients tend to prefer verbal communication, more tacit and continuously negotiated agreements, and less frequent but more formal use of electronic media.

A second area where problems can arise in cross-border outsourcing is in the cultural adaptation of the bridgehead teams working in the client countries. Challenges not only concern the need to adapt to different ways of working but to cultural norms of social behavior, attitudes toward authority, and language issues. For example, some Norwegian outsourcers express a preference for Russian software suppliers rather than Asian companies. They explain this in terms of physical proximity, the similarity of the so-called European mindset, and the relative ease with which Russians learn the Norwegian language.

How can the cross-cultural difficulties of global software outsourcing relationships be addressed? This is the focus of the remainder of this article.<sup>2</sup>

<sup>1</sup>We have also conducted more limited empirical work involving software suppliers in China and Eastern Europe and have studied the literature and interacted with other researchers on all aspects of cross-border outsourcing. On the basis of this, we believe the analysis and conclusions of our article apply generally to cross-cultural software outsourcing relationships.

<sup>2</sup>Our conclusions, as summarized in the tables here, apply to the relationship between outsourcers and software suppliers and thus have relevance for both sides of that relationship. In cases where the conclusion relates specifically to the outsourcer or supplier, we have indicated this in the table.

## Strategic Choice of Projects

One approach to handling the difficulties of cross-cultural working is through the appropriate choice of projects to be outsourced. For example, software that is to be embedded in operating systems or consumer products can often be specified in a relatively culturally neutral way, so less cross-cultural understanding is needed. Similarly, middleware is a layer of software between the network and the applications that performs the function of enabling different end-user systems to communicate more effectively with one another in advanced network applications. This can often be specified in a way that does not depend on continuous cross-cultural contact between outsourcer and supplier.

A second strategic approach to the choice of appropriate projects concerns the value in learning that can be gained through the particular projects. Many Indian software suppliers have acquired knowledge in the telecommunications and e-business domains through projects carried out for North American and European companies. This has resulted in some cases in Japanese outsourcers becoming interested in learning from the Indian software suppliers about leading-edge business systems in these domains. Software suppliers in developing countries, such as China, often focus on particular outsourced projects that offer the opportunity to gain domain expertise (in the banking sector, for example) or to move up the value chain, from tasks such as simple maintenance to higher levels of project involvement and ownership.

The development of application software is only a good strategic choice for cross-border outsourcing where conditions are such that effective in-depth working relationships can be achieved throughout the project. This exists where, for example, there is a good cultural match, such as that between Japan and China. This match relates not merely to linguistic closeness but also to compatible ways of working and understanding user attitudes. Similarly, Indian software developers speak English and often have extensive educational and cultural contact with the U.K., so there is normally a good cultural match here also. In contrast, Germany has not been very successful in attracting Asian software developers to work there, reflecting cross-cultural barriers of language and culture. The more difficult way to achieve effective cross-cultural working, where the cultural match is not close, is through careful attention to such issues as rela-

Minimize cross-cultural issues through project choice of 'culturally-neutral' software	<ul style="list-style-type: none"> <li>• Embedded software</li> <li>• Middleware</li> </ul>
Use relationship to learn about leading-edge business systems, particular business sectors or higher-level software work	<ul style="list-style-type: none"> <li>• For example, in telecommunications or e-business systems (outsourcer)</li> <li>• To gain domain expertise/move up the value chain (supplier)</li> </ul>
Choose applications software only when good cross-cultural working feasible	<ul style="list-style-type: none"> <li>• Cross-cultural match</li> <li>• Or major effort through staffing/training</li> </ul>

**Table 1. Choice of software projects for cross-cultural outsourcing.**

tionship management, staffing, and training, as shown in Table 2 and discussed in the next two sections.

### Managing the Relationship

In all cases of cross-border outsourcing, active management of the client-supplier relationship on both sides is of key importance. The use of common systems is one way the relationship can be facilitated [7]. Such systems include agreed coordination and control mechanisms, for example, to report on and monitor project progress. Further harmonization can be achieved through common processes, such as systems development methodologies [6], and common compatible technologies in terms of computers, software systems, and telecommunications links.

Although much can be achieved through the use of compatible technology and systems, it is important to recognize the limits of this approach. Major differences in norms and values cannot be harmonized, since they derive from deep-seated differences in cultural background, education, and working life. Examples include attitudes toward hierarchy and power and different business practices. For example, British managers in an outsourcing relationship with a particular Indian software supplier found that Indian programmers, in deference to authority, would not voice criticism in face-to-face meetings but would sometimes send their opinions in email messages after the meetings had disbanded. The British managers, used to intense interaction and the development of ideas through meetings, felt frustrated at this “polite” behavior [11]. Such difficulties can, however, be recognized and understood, but it requires substantial effort by both sides in the cross-border collaboration.

An attempt to understand and move some way toward the other partner in a cross-cultural collaboration has been called a negotiated culture perspective [2]. This perspective focuses on attempts to form and develop cross-cultural teams so a compromise working culture is achieved in which both sides of the partnership modify their work behaviors to take account of the

cultural norms of their partners. For example, Germans and Japanese typically have very different attitudes toward “after-hours” working. However, it was noted in a particular German-Japanese international joint venture that some of the German managers began to stay later at work while many of the Japanese worked fewer hours than they were accustomed to in Japan [2]. Negotiated culture of this type is not something that can be achieved easily, and normally occurs only over a significant time period.

Approaches to its achievement include the use of bridgehead teams that spend significant periods in client premises, exchange of staff on a long-term basis between cross-cultural partners, and staffing and training issues, as shown in Table 3a and discussed in the next section.

Use systems to harmonize between outsourcer and supplier	<ul style="list-style-type: none"> <li>• Coordination/control systems</li> <li>• Processes</li> <li>• Technology</li> </ul>
Understand differences in norms and values	<ul style="list-style-type: none"> <li>• Hierarchy/power</li> <li>• Business practices</li> </ul>
Encourage 'negotiated culture' of cross-cultural teams developing compromise 'working culture'	<ul style="list-style-type: none"> <li>• Bridgeheads and exchange mechanisms</li> <li>• Staffing and training</li> </ul>

**Table 2. Approaches to managing the cross-cultural relationship.**

### Staffing Issues

Although some movement toward other cultures is possible, it is unrealistic to expect expatriates in any country to be able to think and act like locals. This can create serious problems in areas such as application software development, where in-depth client contact is needed. To resolve this problem, successful outsourcing relationships often involve people who bridge cultures. For example, people originally from India, but with higher education and long-term residence in North America, have been reposted to India as expatriate managers for outsourcing projects. Such managers are often effective in overseeing complex outsourcing projects.

**Table 3a. Choice of staff and incentives.**

Recognize limits to cultural adaptation	<ul style="list-style-type: none"> <li>• Foreigners cannot 'become' locals</li> </ul>
Use 'cultural bridging' staff	<ul style="list-style-type: none"> <li>• People rooted in both cultures</li> <li>• Locals as on-site workers (supplier)</li> </ul>
Use locally-relevant recruitment and retention incentives	<ul style="list-style-type: none"> <li>• Salary</li> <li>• But also status/expertise acquisition</li> </ul>

A complementary solution to the problem of cultural bridging is for the software supplier to maintain a mixed cultural team in the client country. Locals in this country can then be used to perform a range of tasks, including being members of the sales force and of bridgehead teams in client premises or sometimes as senior staff dealing with the corresponding level in the client company. One reservation that so-called third-world software suppliers have about employing “first-world” staff is cost. However, such staff should be regarded as an essential overhead for major projects.

**Table 3b. Training needs and processes.**

Give pre-posting cultural training for supplier employees working in outsourcer companies (supplier)	<ul style="list-style-type: none"> <li>• Language</li> <li>• Cultural practices, norms, and values</li> </ul>
Develop systematic on-the-job cross-cultural training	<ul style="list-style-type: none"> <li>• To reflect on ongoing experience</li> <li>• To share knowledge with colleagues</li> </ul>
Recognize that training needs are two-way (outsourcer)	<ul style="list-style-type: none"> <li>• Not just for supplier staff</li> </ul>

Such managers are often effective in overseeing complex outsourcing projects. A complementary solution to the problem of cultural bridging is for the software supplier to maintain a mixed cultural team in the client country. Locals in this country can then be used to perform a range of tasks, including being members of the sales force and of bridgehead teams in client premises or sometimes as senior staff dealing with the corresponding level in the client company. One reservation that so-called third-world software suppliers have about employing “first-world” staff is cost. However, such staff should be regarded as an essential overhead for major projects.

How can people who can effectively bridge cultures be recruited and retained? Salary is one means, but there are cultural differences in the weight ascribed to this factor. In many Western economies, such as the U.S., salary is arguably the most important incentive for many people. In Japan, for example, it is less so, with many Japanese being very concerned about the status of the employing company rather than merely the salary. This is one of the problems that Indian companies, for example, have in recruiting employees in Japan. Similarly, German companies often find it difficult to locate managers with the appropriate personality profile for directing their development centers in Asia. A suitable person, apart from technical competence, must be open and adaptable to the different living and work environments. Recruitment and retention packages for staff must be tailored to the realities of these issues in specific contexts and labor markets.

## Training

Many organizations, including those in the cross-border software business, offer pre-posting cultural training for employees (see Table 3b), varying from basic orientation courses to more substantive programs on language and cultural practices [5]. For difficult software outsourcing situations, such as Indian companies working in Japan [8], the fuller type of program is necessary.

Systematic on-the-job cross-cultural training is less common in our experience. Staff involved in cross-border relationships learn ways to achieve better cross-cultural collaboration, but there tends to be no structured opportunity in which this experience can be reflected upon and shared with colleagues in a formal way. Informal sharing of experience is important. However, we would argue that formal cross-cultural training should not stop when the staff member has arrived at the foreign employment location.

Cultural training is often perceived as necessary only in one direction, namely for the staff from the software supplier to learn about the culture of the countries of their client organizations. Regardless of any ethical concerns about such a culturally-blind attitude, it is also surely bad business practice. Training for cross-border software outsourcing should be seen as a two-way learning process. Then, all aspects of the relationship, from contract negotiation to the delivery of the final software product, can take place on the basis of a well-informed understanding of the culture and business practices of one's customer or supplier.

## Conclusion

We have suggested ways to address and resolve problems and challenges in cross-border software

outsourcing relationships. These involved the initial strategic choice of appropriate projects, ways of managing the relationship, and approaches to staffing and training. Although focused on software outsourcing, many of our conclusions are also relevant to global software teams operating within a specific company [3]. Some increased convergence of attitudes and approaches can be expected in such a context when compared to outsourcing to a different company, but the challenges of working in multicultural teams still apply.

We live in a more globalized world, in which there is increasing interconnection between different societies, and cross-border software outsourcing provides one example of this. But globalization does not imply homogeneity of culture [12]. In working in the contemporary world, we need to make extra efforts to tackle cross-cultural issues. This should lead not only to more effective business practices in areas such as cross-border software outsourcing but also to a world of increased cross-cultural understanding. **C**

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