Software Quality Paper on Offshoring 2.0

Market, trends and success factors for the outsourcing of software testing—short version

The offshoring of IT work is currently entering its second major phase and in the process is undergoing fundamental change.

1) The motivation for outsourcing IT tasks is becoming more diverse. Reducing costs is no longer the sole determining driving force for clients.
2) Increasingly, offshoring is meant to open the door for experts who are not available on the domestic market in sufficient numbers or with the appropriate qualifications.
3) The mere relocation of tasks is being replaced by a flexible distribution of know-how and experts to a majority of locations and service providers with the best price-performance ratio in each case.
4) Offshoring as an operative instrument is gaining a strategic dimension, with the aid of which the business is reforming the organisation of IT production, maintenance and operation with a view to further standardisation and industrialisation.
5) Many tasks which were previously considered part of a company's core business are becoming candidates for offshoring, as both the steering capabilities of the clients and the level of know-how among the service providers are rising. One example is (the management of) software quality assurance.

All of these developments have direct repercussions for the outsourcing companies themselves, but at the same time also for the service provider market, which is becoming increasingly differentiated. The market-dominating position of the predominantly Indian all-round service providers is weakening, for a number of reasons.

1) The cost advantage of the traditional offshore countries is diminishing. For example, salary increases for IT specialists in India are still running at around 20 per cent per annum. Another example is many of the hitherto successful offshore locations in Eastern Europe, which are now inside the EU. Their pay levels are increasingly being brought into line with those in Western European countries.
2) The shortage of experts that is now also affecting many offshore locations is giving rise to employee turnover rates there of as much as 30 per cent. If the tasks are of a purely operative nature, such upheavals do not present further problems. However, the more complex and knowledge-intensive the services are, the more stable the project environment of the service provider has to be as well.

3) Especially for clients for whom English is a foreign language, culture and language are only now proving to be a barrier that is critical to success, as communication is more intensive and more demanding in the new generation of offshoring. Experts who—as well as English—also speak the mother tongue of their respective clients are therefore becoming essential in some cases.

4) The rising demand for high-quality specialised know-how is opening up new market opportunities for those service providers who focus on a specific segment of the software lifecycle, for example on software testing.

5) The ratio of onsite to offshore has levelled off at a maximum of 30:70, and also only reaches this in the medium term on the basis of a stable project environment. This makes service providers attractive who on the one hand are located in the client's domestic market and on the other hand are able to offer their own offshore resources.

Academics at the University of Erlangen-Nuremberg confirm the trends outlined above. In their study entitled Critical Success Factors of Offshore Software Development Projects, Prof. Michael Amberg and Martin Wiener identified a total of 29 success factors that are based on experience from previous offshore practice. Among these it is above all so-called soft factors that are important, such as creating a spirit of partnership, ensuring a continuous communication flow and preparing a detailed project specification. (Source: http://www.wi3.uni-erlangen.de/OSE)

Test offshoring

Within the framework of offshore diversification, software quality assurance and testing (QA) is emerging as one of the new disciplines. The two market research companies Coleman Parkes and Pierre Audoin Consultants (PAC), for example, are convinced that software testing processes are fundamentally very well suited to outsourcing. In their study from early 2007 on the market for software QA in six countries, they show that testing firstly does not form part of the core business of the companies, and secondly that external providers are better able to ensure the necessary separation of development and quality assurance. This view is also shared by a great majority of the surveyed companies. According to the study, 66 per cent of German-speaking companies and 69 per cent in the United Kingdom, Ireland and South Africa considered it "very important" or "important" that software development and testing should take place separately.

The study states that service providers in this specialised market can also look forward to a generally growing market for QA services in the coming years. Nevertheless, they have to expect greater price pressure in some cases, especially in the event of possible cyclical downturns: over half of those questioned (55 per cent) are planning a zero-growth budget for QA by externals. In this connection, flexible onsite-offshore performance models are among the means that can be used to counter the competitive pressure.

When it comes to testing, there are above all five barriers that deter potential clients from choosing to go down the route of offshoring. In the context of an expanded offshoring 2.0

approach, service providers have the opportunity to counteract these reservations and risks, as explained in the following.

Time barriers
As a rule, companies reckon it takes 16 to 18 weeks to set up an offshore project. Only then can actual testing begin. Adaptive procedures that use a risk-based and customer-specific approach shorten the time needed for the classical sequential method.

Barriers to transparency
The onsite and offshore teams of a service provider often see things differently and provide different information, with the effect that customers do not receive consistent answers to their questions, for example on the progress of a project. This makes successful project steering more difficult. Central, metrics-based dashboards—that are kept simple—for everyone involved in the project establish clarity in this connection. They show the current state of a project at any point in time and provide information that enables the responsible managers to measure productivity, project progress, risk and quality.

Cultural barriers
It is possible to bridge the cultural differences between the client and the service provider, between the onsite team and the offshore team. However, anyone who wants to bring different attitudes to risk, conflict or perhaps hierarchies under a single common denominator must provide resources to do so, which ultimately in turn reduce the added value of offshoring. New offshore locations with a European culture, as for example South Africa, open up simpler and more cost-effective options in this respect.

Quality-of-service barriers
Remuneration for offshore services is often provided according to the number of employees assigned and the hours they work. This, though, says nothing about the quality and results of the services rendered. In the medium term, therefore, service providers have to be able to offer different price models, for example using so-called “quality points” as a results-oriented measure for calculating the services supplied.

Communications barriers
Even between companies in the same country, disruptions to communication can occur if for example the team members do not all use the same technical terminology. This disruptive factor is further multiplied, the larger and more international the configuration of the project is designed to be. In software testing, service providers take preventive action against such difficulties when they certify their experts in accordance with the globally recognised and widespread training standard ISTQB® (International Software Testing Qualifications Board). This guarantees a level of competence that is not dependent on either the country or the team, as well as expert communication that uses standardised terms and approaches.

We will be pleased to provide you with a full version of the SQS Software Quality Paper on Offshoring 2.0 on request. Please contact Liliana Preuß (liliana.preuss@sqs.de).

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