

**OOPSLA 2008 Workshop on Challenges: Agile Values Meet Different Value Systems**  
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From my point of view that is based on research at the Software Engineering Group at the University of Hamburg as well as empirical experiences in agile development projects at C1 WPS GmbH, different organizations and – even more – different value systems may hamper the efficient application of agile methods. This is true for conventional software development, e. g. when an agile development teams meets a plan-driven customer. Some effort is required to establish flexible, people-centered labor practices with honest communication and frequent feedback between all participants. The case is even worse with IT-offshoring with global software development, which is my focus of study. Here, different organizations, usually coming from very different cultures have to cooperate [1].

It is essential to establish a good relationship and a working development process between the customer, possible onshore development teams and the offshore service provider. If the habitually used methods and tools of the different parties do not match, it may be possible to mitigate by two ways:

1. The same methods and tools are used. At least one party has to adapt.
2. Different methods and tools may be used. Interfaces and handover points between the parties have to be defined thoroughly.

Both ways have their advantages and disadvantages; a silver bullet is not in sight.

We conducted a case study to gather practical experience on the first approach. A German mail order company outsourced the development of a new customer information and order handling system to teams in Germany and India. The German team was in charge, so their usual style of agile development, mainly following extreme programming, was chosen for the project. Two Indian developers were involved in the first iteration at the location of the German team. After that, they returned to India to assemble a development team there, using the same agile methods and tools they had been working with in the first iteration. More on the background of this study can be found in [2].

The first iteration worked out quite well. In the later iterations, the team was globally distributed and the means of communication were limited. Several conflicts arose. Exemplary issues from the German team's point of view were the neglect of unit tests by the offshore team, a stiff and tedious communication between the teams, the lack of flexibility of the offshore team and the need for written and approved agreements.

Many problems seem to be rooted in different value systems between Germany and India. See Hofstede's work [3] for an applicable framework for assessing cultural differences. Typical differences that were experienced in the project were (India / Germany):

- strongly hierarchical organization / small, mostly self-determined teams,
- structures of the project are not challenged / team members are encouraged to improve the process,
- bureaucratic work division with strong division of labor / flexible, holistic execution of tasks.

Other case studies with nearshoring projects show that agile development works far better with countries that are culturally closer related, e. g. from Germany to Ireland or to Russia. In the case study, the agile methods and tools were adapted to the situation. Requirements and

work tasks were documented more formally. Interfaces between components developed at different sites were defined prior to implementation. Rigid quality assurance measures were put in place. With these measures, the project could be finished successfully.

#### Conclusion:

Divergent value systems make it very difficult to work with distributed teams of different cultures in an agile way. Agile methods and tools can be used, but compromises and more formal working habits are necessary in some areas.

- [1] Sangwan, Raghvinder ; Bass, Matthew ; Mullick, Neel ; Paulish, Daniel J. ; Kazmeier, Juergen: *Global Software Development Handbook (Auerbach Series on Applied Software Engineering)*. Boston, MA, USA : Auerbach Publications, 2006
- [2] Kornstädt, Andreas ; Sauer, Joachim: Tackling Offshore Communication Challenges with Agile Architecture-Centric Development. In: *Proceedings of the Sixth Working IEEE/IFIP Conference on Software Architecture, January 6-9 2007, Mumbai, India, 2007*
- [3] Hofstede, Geert: *Cultures and Organizations: Software of the Mind*. Second Edition. McGraw-Hill, New York, 2004