A Systematic Approach to Optimise Management in Global Sourcing Relationships

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Despite a large number of studies, global IT sourcing projects are, in practice, performed ad-hoc and rely mostly on the manager’s experience.

We had access to ten software development outsourcing projects in four representative companies (two large, one medium and one small) with different approaches to orchestrate outsourcing projects. In our case studies, we have observed that despite the many concepts and best practices that can be used to improve project management (such as software cost estimation models (e.g., COCOMO), development process frameworks (e.g., RUP), maturity models (e.g., CMMI), governance models (e.g., Cobit), and project management methods (e.g., Prince2), practitioners find it unclear which mechanisms are effective to control IT outsourcing projects.

Outsourcing software development presents extra challenges because development is performed in an inter-organisational network. A customer (an organisation) asks a vendor (another organisation) to produce some IT artefact. Although organisations collaborate by transferring knowledge from the customer to the vendor (e.g., requirements) and from the vendor to the client (e.g., product, status reports), each has its own interests and needs; which often conflict. Tacit requirements, conflicting interests and knowledge-domain gaps contribute to generate final solutions that cost more in terms of resources than what was originally planned or that do not help customers to meet their ambitions.

Different kinds of projects demand different mechanisms. Our observations indicate that effective mechanisms to control an outsourcing project depend on the project characteristics. For instance, applicable governance mechanisms depend on the type of collaboration between outsourcing and provider. In other words, what is a successful way to govern a project depends on factors of the project and its environment. (By successful we mean that a project delivers some product that helps an outsourcing organization to meet its business goals over time.) Those factors include partnership maturity, trust, interest to continue the partnership in the long-term, contract type, project size, co-ordination issues and domains involved. The large amount of factors to consider suggests the need to optimise any ad-hoc approach used to discover effective mechanisms to manage a global sourcing project.

As another example, recent results indicate the importance of knowledge co-ordination, e.g., securing effective translation of concepts across domains [Ponisio and Vruggink, Accepted. In pre-ECIS conference Global Sourcing Management Workshop. Verona, Italy. June 2009]
2008]. This can be explained by the fact that translating concepts belonging to the business world to the programming world is difficult. Subsequently, the more domains involved and the bigger the distance between domains, the more important it is to implement mechanisms to secure effective translation of key concepts. If a project involves multiple domains, then a good governance practice is to modularise key assets and to make sure that top performers act as mediators across domains, securing thus effective transfer of information.

In order to help practitioners to find mechanisms to control outsourcing projects, we need a reasoning tool that leads the way to semi-automatisation and quantitative data visualisation support. Results suggest the need for a flexible easy-to-use technique that helps project managers and researchers to spot (in an outsourcing project and based on a sound structure) opportunities for optimisation. We propose to follow a method for critical problem solving (the engineering cycle [Wieringa, 2007]) to support developing an action plan for management of global sourcing projects. Such a framework should provide guidance to reason about obstacles in, for instance, knowledge co-ordination. We name it eStudio.

In this work we will set the basis for the model of eStudio. We will extend previous work proposing a semiautomatic visualization approach to efficiently analyse the mechanisms behind successful management. However, it is necessary first to build a conceptual meta-model.

Building a conceptual meta-model will set in a picture the different perspectives of the problem and will unify concepts that appear in practice under different names. The benefit for practitioners will be more clarity and in-depth knowledge of the problem, learning conditions that appear in practice and factors that affect success in a given outsourcing environment. In addition, a unified conceptual model will provide the elements necessary for practitioners to compare existing outsourcing contexts and management solutions. For instance, they will put in the picture the multiple domains involved (management, engineering, etc.), concrete organizational issues that affect the partnership process (e.g., partnership maturity, interest in forming a long-term partnership, and kind of contract), current IT supporting conditions (such as amount of knowledge of requirements, the degree of modularization and standardisation), and co-ordination issues that affect transfer of information between managers, board members and developers.

We want to build a semiautomatic visualization approach to analyse the mechanisms behind successful management. Application of a similar approach has proven to be successful in research in the areas of reverse engineering [Ducasse et al., 2000] and architectural design. Moreover, this approach is in line with our results from previous work [Ponisio et al., 2008, Ponisio and Vruggink, 2008, van Eck and Ponisio, 2008, de Wit and Ponisio, 2008] in the areas of outsourcing management and systems analysis.

We discussed the idea of our approach with outsourcing experts. Their opinions are encouraging at the very least. Not only they could relate to it, but also they find our

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approach a step forward to a less ad-hoc way of working: if in need to find concrete poor mechanisms causing underperformance, this approach would help experts to ask the right questions.

The practical benefits are twofold. On the one hand, project managers obtain better assessments than studying the problem with an ad-hoc practice (because the engineering cycle guides the observer to the important questions). On the other, our approach helps researchers to perform faster and more focussed analyses of case studies, forming a link between industry challenges and academia solutions.

We already have results in the area of governance of global sourcing which are in line with existing work in the area of socialization in globally distributed teams [Oshri et al., 2007, Kernkamp, 2007], outsourcing [Ross and Westerman, 2004], business IT alignment [Reich et al., 2008, Chan and Reich, 2007] and cross-boundary co-ordination practices [Star and Griesemer, 1989, Kellogg et al., 2006]. In the near future we want to test our approach (and our viewpoint) in case studies. Our vision is to help this work grow by including the opinion of the global sourcing community.

References


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