Successful outsourcing: Necessary conditions and best practices

Master of advanced Studies thesis MTEC

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1. PROJECT DESCRIPTION

Overview

Outsourcing is a difficult endeavor. Many companies try it, some fail and some succeed (partly). In this thesis we want to look at several (Swiss) companies mainly in the field of hardware and (low-level) software design (with a particular focus on Albis Technologies) and come up with conditions and processes for outsourcing. Clearly, there is no unified simple process, but what and how to outsource is highly dependent on project/ business constraints such as timeline, costs, required quality, know-how and production facilities etc. Additionally, outsourcing comes in different forms, e.g. in-house outsourcing, contracting etc. Each form brings its own requirements for successful management.

Scope of the work

Through literature research and primary by interviewing companies, we want to answer general questions like:

   - Can we identify specific factors that favor or impede the success of outsourcing projects?
   - Can we produce a clear list of dos and donts (not just platitudes, but clear risks and good practices)?

   - What tasks are being outsourced and to which destinations?

   - Is there a correlation between success rate and development process?

   - …

Apart from this general considerations we also want to look at more Albis Tech. specific questions like

   - What business areas (or projects) of Albis are suitable for outsourcing?

   - What is the best way for your Albis to outsource?

   - Is Albis' development process suitable for interacting with an outsourcing provider?

   - …

Intended results

The outcome should essentially yield a strategy for Albis for outsourcing, as well as a guide how to do it. We also want to derive scientific findings regarding outsourcing by answering the above questions in more analytic way, i.e. explaining results by suitable models and backing up statements by (statistically significant) empirical data.

2. BACKGROUND MATERIAL

Reading list

- The Offshoring of engineering: Facts, Unknowns and Potential Implications, Committee of Offshoring, 2008.

- Entscheidungsfindung fuer IT-Outsourcing: Gurndlagen, Kosten und Nutzen, Rene Schwantuschke, 2007.

- Global Outsourcing and Offshoring: An Integrated Approach to Theory and Coporate Strategy, 2011.

- Lecture on Distributed and Outsourced Software Engineering, Peter Kolb, Bertrand Meyer, Martin Nordio, 2011.

- Offshoring Strategies: Evolving captive center models, Ilan Oshri, 2011.

- IT-Offshoring: Management internationaler IT-Outsourcing-Projekte, Amberg Michael, 2006.

- Softwareentwicklung im Offshoring: Erfolgsfaktoren für die Praxis, Toni Steinle, 2007.

- (and more…)

3. PROJECT MANAGEMENT

Objectives and priorities

See Intented results. Priorities are the same for the tasks.

Criteria for success

Well designed questionaire for interview, good literature research, good analysis and understanding of Albis processes

Method of work

See Project steps below.

Quality management

Documentation

Validation steps

Discuss (bi)weekly project state (current results) and future work with Martin Nordio.

4. PLAN WITH MILESTONES

WBS	Tasks	Start	End	Duration (Days)
1	**Build up/improve general knowledge**	3.10.11	24.10.11	22
1.1	Get to know/ improve know how on general methodology for outsourcing (mainly technology independent, e.g. make or buy, project organization...)	3.10.11	24.10.11	15
1.2	Get to know/ improve know how on (technology dependent) development processes: PCB Design, embedded software development…	3.10.11	24.10.11	14
1.3	Establish contacts with other companies for interviews	15.10.11	16.10.11	1
1.4	Meeting ETH supervisors at Albis (about 2 weeks after start)	17.10.11	17.10.11	1
2	**Look at specific processes at Albis**	20.10.11	4.12.11	46
2.1	Propose questions for interviews within Albis/other companies	20.10.11	24.10.11	4
2.2	Perform interviews within Albis, other companies	25.10.11	15.11.11	10
2.3	Answer general academic questions, propose specific methodology for outsourcing for Albis	4.11.11	3.12.11	31
2.4	Meeting ETH supervisors (usually at ETH, about 5 weeks after start)	10.11.11	10.11.11	1
2.5	Meeting ETH supervisors (at ETH, 8-9 weeks after start)	3.12.11	3.12.11	1
3	**Reserve/ write up report**	4.12.11	9.12.11	5

MILESTONES

15.10. Fix at least 5 interview partners

20.10. Draft of questionaire for interviews

10.11. Draft of emperical evalution of results of questionaire

2.12. Draft of report (at least of empircal results and analysis)

9.12. Handing in of thesis