

# Global Software Engineering

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## Memo

It should be very carefully thought out if outsourcing development to China is worth the potential savings in developer costs since the 15% savings in developer cost is not huge for a small organization and even less compared to the total operational costs. The project should not be needlessly distributed since this would bring additional challenges. The decision should consider the long-term future of the company. Here some points that should be considered:

- Outsourcing only after one year of development might be premature.
- The financial savings would only start to accumulate once the transition costs like training is accounted for the outsourced developers. The outsourced developers should be trained in Scrum. For example, engineers from the current team should visit and help the new team to apply the Scrum practices. Outsourcing has risks and if it does not work out the company could end up losing time and money.
- The cost of communicating should be taken into account. The Chinese developers that are hired should have appropriate English skills and English should be used at work. Communication should include face-to-face meetings, temporal collocation, and exchange visits. The cost of setting communication and traveling should also be taken into account in the decision. The communication should be frequent and implemented using synchronous interaction.
- The competence of the new developers should be evaluated for example by developing prototype application.
- Incremental development cycles should be kept short for timely feedback loops.
- Outsourcing would require investments in reliable infrastructure, including a centralized repository, common configuration management tools, and rich communication media. The task dependencies across the site should be kept low by implementing a decoupled architecture. These changes would require potential changes in the codebase, development time and cost money.
- Time zone differences should be taken into account. Time zone difference between Finland (GMT +2) and China (GMT +8) is 6 hours.
- Cultural differences and Chinese holidays should be accounted for.
- The potential geopolitical issues such as the Great Firewall should be considered since the company is producing a web-software.
- Chinese laws, such labor laws should be understood and their potential implications for the production.
- The decision should be considered against other outsourcing countries such as India.

Following collaboration practices should be implemented between teams:

- Teams can have different processes but the main milestones should be synchronized.
- Frequent deliveries and an iterative development process.
- Establishing peer-to-peer links by creating and assigning roles to the team members and indicating which roles communicate with each other. These links can help with problem-solving communication, creating transparency about the project progress and building good relationships between distributed teams.

The decision of outsourcing to China could bring new business opportunities in the Chinese markets. This would also mean scaling up the development and the size of the organization and understand the market situation for the product in China.

From these notes, it should be clear that the other implications of outsourcing should not be overlooked only due to financial incentives which are not even guaranteed. Outsourcing would have large implications for the organizational structure, the employees and the management.

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(Smite and Wohlin 2011) (Paasivaara and Lassenius 2003) (Vinluan 2012) (Flinders 2010)

## Bibliography

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