



Improving Project Estimation Effectiveness

Rahul Sonje

Overview

The three pillars for the success of any project are cost, effort and quality. The foundation of these pillars is based on estimation technique used for the project. However, historically it has been observed that lots of projects experience cost, effort and schedule overrun or poor quality. In most of cases, the project end up taking alternate paths to fulfil the budget constraint and ends up delivering an inadequate product/application/service.

In this paper we will look at what could be the possible factors affecting the foundation (i.e. estimation) of any project:

1. Lack of knowledge on how to estimate and estimation techniques
2. Adoption of inappropriate estimation methodologies
3. Misinterpretation of available historical information
4. Lack of information necessary for estimation
5. Inadequate timeframe to perform estimates
6. Insufficient experience in doing estimation for similar kind of work

We also attempt to address the above factors based on author's vast experience in the field of project management and best practices learned while working for Fortune 500 companies in the capacity of project manager

SMART

Here are some Specific, Measurable, Attainable, Realistic and Tangible top 11 lessons which would help in improving the estimation technique:

1. Institutionalize a culture to educate project teams about estimation (techniques/tools).
2. Encourage use of appropriate estimation techniques for different phases of the project life cycle.
3. Empower project manager to estimate and re-estimate after every phase of the project life cycle (if necessary).
4. Clearly defined guidelines for creating estimate baselines should be in place.
5. Every change request should be documented and estimated.
6. Estimation once done, should not be considered as sacrosanct. There should be provision to revise it if the circumstances under which it was prepared for the first time change. (Refer diagram 1)
7. Project needs and requirements should be documented in such a way that inputs, outputs and process is defined. The clearer the input, the better is the estimate.
8. Leverage historical information about project's effort, schedule, cost, risk, and resources which can be referred as lessons learned / best practices from engagements executed in the past. Statistical baselines should be created for

each factor affecting project effort for e.g. user training effort baseline or project management effort baseline. These statistical baselines should be revised periodically.

9. Propagate the culture to define work packages and track time against them diligently. (Project management tools should be provided to do so)
10. Every organization has influence on overall project effort which should be considered while estimating the project timelines as each organization has their own tried and tested way of executing project based on their available skill set and capability with the client.
11. One aspect of project estimation which has been ignored most of the time is size estimation which is very essential to measure project performance, build baselines or perform comparative analysis. Organizations should perform size estimate and use organizational productivity baseline (per size unit) for estimating project effort.

It goes without saying that leaders should validate project performance based against the plan and use metrics based on project estimates (size, effort, cost and schedule) and actuals for decision making.

Risk management mechanism should be established / improved and should capture risk occurrence information centrally for future reference. Improved risk management will reduce uncertainties (contingency factor) and hence will help to provide better estimates.

Leadership should also sponsor tools and techniques based on estimation methodologies to check project health and decision making.

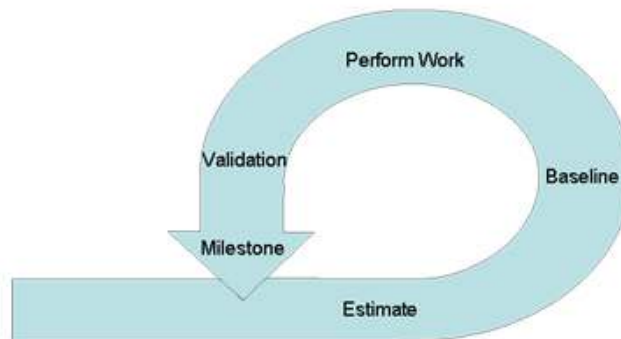


Diagram 1

Conclusion

Improved estimation effectiveness will help business to:

1. Make better investment decisions
2. Generate more return on investment (ROI)
3. Gain advantage over competitors by taking appropriate and timely decisions
4. More control over project execution
5. Finally improve organizational productivity.

Essentially estimation effectiveness is nothing more than how close your estimates are to actuals.

The Author

Mr. Rahul Sonje has over 7.5 years of total work experience in the area of IT Consulting, Project Management and Software Quality. He was with estimation Center of Excellence at the IT Process & Service Management group, Global Consulting Practice, TCS. In his past engagements, Rahul has implemented Microsoft enterprise project management for fortune 500 companies. He has supervised projects in the domain of web based application development & Business Intelligence. He is also Six Sigma green belt certified and MCP for SQL Server 2000. He brings with him multi-industry experience having consulted and worked with organizations in IT, Financial Services, Energy, Government and Media.

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