MS-E2177
Seminar on Case Studies in Operations Research
Expert judgements for cost assessment in risk management
Interim Report

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1 Changes in project scope and objectives

After the project plan presentation on the 11th of March we have had two meetings that have had a profound impact on the project scope and objectives. The first of these was with our end-user client Skanska. We discussed both the three-point estimate and risk correlation aspects of our project. The end-user was interested in how the three-point estimate could be used to infer something about the distribution of a given risk. However, regarding the risk correlation tool, they commented that it did not provide them with any significant value during a demo run and therefore they are not using it. After asking why, they stated that doing a risk correlation analysis with the current interface was laborious, the end results were hard to interpret due to cluttering, and that the correlations between risks were "obvious". Also, a comment was made about how there have been plans on using risk correlations in conjunction with Monte Carlo simulations to assess the total risk of a project.

As a team we were not so sure about the "obvious" correlations comment, but the other three comments provided us with invaluable information on what we should be focusing on. The discussion with Skanska also made us realize that we had not decided what specific problems or questions we should be trying to answer with regards to the risk correlation part of our project, triggering us to have a meeting with our client Inclus. We discussed the contents of our meeting with Skanska and also asked Inclus what specific problems they were facing with the tool and what sort of problems we should be focusing on. During our discussion we landed on three specific questions: What kind of an interface the risk correlation tool should have to make the end-user experience approachable? How should the results be presented to the end-user to improve readability? What kind of features should be added to the risk correlation tool in future development?

During the meeting with Inclus, we also discussed that focusing on these three questions would probably allow us to focus more on the three-point estimate part of the project. Therefore, we are looking for alternative methods besides the one we have already implemented.

2 Project status

The benchmarking of other risk management softwares has been completely finished. The work on the three-point estimate has also kept up to the schedule rather well, and there is already some functional demo code for this, despite coding not being part of the initial project plan.

The task of risk correlation analysis is somewhat behind the original schedule. One reason for this is the feedback received from Skanska, which led us to refocus our project to have higher emphasis on three-point estimate. This produced small hindrance in the schedule, the other reason being the heavy workload of some project members in the last study period of the academic year. This has been taken into account in the weekly group meetings, and in order to counter further delays, sufficient time for the project has been allocated in the future.

3 Changes to project plan

The project continues mainly in accordance with the original project plan. There were some minor adjustments made for improved clarity and sharpened focus on the objectives. Additionally, due to the changes in the project scope regarding shifting the workload towards the three point estimate model, the project schedule was revised to represent this change more appropriately.

The recent meeting with Skanska led to a change in the scope of the project. More emphasis were put on the three-point estimate model and some was taken from the risk correlation features thus altering the schedule of the project in a way that more time is allocated for the three-point estimate model. The original project plan conceptualized the risk correlations as a major part of the last steps of the project but now the focus of it has been shifted towards developing the three-point estimate model further. Some focus is also still left on this risk correlations conceptualization. Otherwise, the project schedule shall continue as stated in the original plan.

4 Updated risk management plan

After interviewing with Inclus and Skanska, it was necessary to update our risk management plan, since the estimates of the impacts and probabilities of different risks have changed and some risks have already been realized. Figure 1 shows the updated probability-impact chart of important risks describing the conditional probabilities and impacts given the previous events.

The greatest issues so far have been matching the client needs with the project scope. Our initial estimations of risks in the project plan, concerning the radical change in the scope of the project, were given relatively small probability and impact. Despite that, it was realized and shifted the scope of the project away from cross correlations and towards the three point estimate. We clearly underestimated the impact of this risk, but since the other parties were flexible to this change, we decided that the most practical solution is to proceed according to the needs of the client. From this point on, the project risk mitigation is mainly done by focusing on the current scope and not letting external factors to interfere our plans.

Personal scheduling issues of individual members have also caused occasional delay in the completion of some parts of the project. The methods to mitigate this in the future is to increase communication between team members and create a more structured routine for writing and searching literature. Looking ahead and estimating personal time consumption is also important in order to finish the project in time.

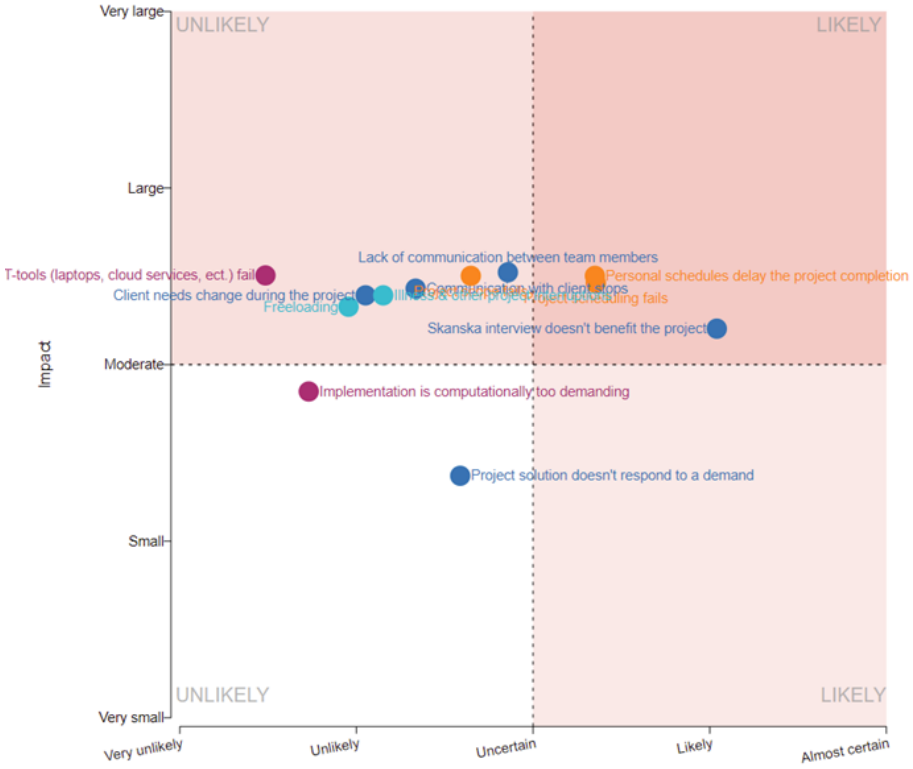

Figure 1: Updated risk chart

References