

Using Practical Risk Modelling to Influence Project Board members

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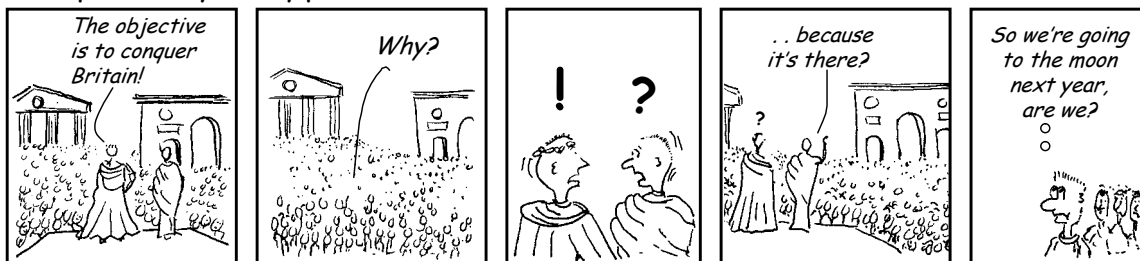
Projects are set up to achieve benefits. The Project Board is accountable for the achievement of those benefits. However, nothing planned for the future is certain and therefore risk is inherent in every project. What tools and techniques help the Project Board focus on its real role with regards to risk management rather than getting drowned in the minutiae of delivery? This paper looks at four “simulation” techniques which can help. These include using Conditions of Satisfaction, staged frameworks, health checks and probabilistic methods. All these seek to simulate, in tools, taxonomy or models, the project from the Project Board perspective.

Starting at the End – Conditions of Satisfaction

Organisations need to develop new products and capabilities, more effective and efficient ways of working and improved ways of servicing their stakeholder and customer needs. In short, if an organisation is to thrive, it needs to change . . . and keep changing. This need is at the heart of “business-led programme and project management”. Senior executives are not usually interested in undertaking projects, but are interested in the benefits realised as a result of the project. For the sake of simplicity, let’s call the group of senior managers who direct a project the “Project Board¹”.

With this in mind, the starting point for any business led project is the vision of the end point. Put simply, the Project Board members need to be sure of where they need to go, why and the benefits, which are likely to be realised. Simply knowing WHAT is to be done is totally inadequate.

The question “why” is very powerful.



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This vision can be tested before any project starts simply by answering the question, “*What will we observe at a future date, which shows the required change has happened?*” In Project Workout [1], these statements of the future are called “Conditions of Satisfaction”. They are the criteria by which the success of a project will be determined. Simply to deliver a new computer system, for instance, is not enough. You need to state conditions of satisfaction in terms which indicate that benefit is being or is starting to be realised. Another term for “Conditions of Satisfaction” and which is gaining considerable respect as part of Isochron’s proprietary methodology, is “Recognition EventTM” [2].

¹ For Project Board, the term Project Sponsor or Project Executive may also be used throughout this paper.

Once you have identified the end point, in terms of changes which can be observed and verified, then it is a matter of “backcasting”² to create a project plan. This has a number of advantages:

- The end point, in terms of benefit is kept in focus which is what a Project Board really needs, especially when things go wrong. For example, in some change projects I have seen the IT system deliverables come off the critical path, with significant business benefits being achieved regardless.
- Sponsorship for the project shifts away from those who do the work (create project deliverables) to those who want the resultant benefits. For example, it is still staggering how many organisations have IT Directors sponsoring customer management or finance “system projects”. No wonder such projects go off the rails, when those directing them are more interested in the “what” rather than the “why”.
- Only those activities needed to reach the end point are built into the plan; superfluous activities and deliverables are not even considered.
- Traceability from activities and deliverables to benefits is maintained, so if in future, the business objectives of the project are changed, you know which activities can be dispensed with.

So Where is “Risk” in all this?

A focus on the end point (benefits), as represented by the Conditions of Satisfaction provides a mechanism against which risk can be considered. Without a focus on benefits, delusional thinking can set in and “obvious” risks are simply ignored or dismissed as “negative thinking”.

Ignore the risks at your peril!



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The commonly known (if not used) risk taxonomy comes into its own:

*There is a risk that . . .
 . . . caused by . . .
 . . . resulting in . . .*

The “caused by . . .” statement, is a clue to what you may have to change in order to reduce or prevent the risk. If the risk “happens”, it is the “caused by” statement, which will be the issue, which is identified (sometimes called a risk trigger).

² Backcasting is the opposite of forecasting. In backcasting, you start at the result and work back to the present day saying what needs to be done to achieve the outcome. Forecasting start from now and works into the future.

If the “**resulting in . . .**” statement does not impact one of the Conditions of Satisfaction, there is no risk. If you look at the risks on many project Risk Logs, I expect you will find many do not fit taxonomy like that above and probably do not impact the results. All too often, Risk Logs tend to be a set of “worries” created by people responsible for creating the deliverables.

Notice that the Prince2 methodology has the Project Board as the owners of the risk log and the “primary risk taker”. If the risk log is constructed properly, this becomes self-evident. The Project Board:

- wants the benefits the project was set up to realise.
- owns the Business Case, which justifies the reasons for doing the project (i.e. its outcome).
- needs to be on top of anything which may thwart their aims (i.e. risks).

More about Risk Logs

Risk management is too often seen as merely managing a “risk log”, typically by:

- using creative means to develop a list of risks,
- analysing them,
- allocating impact and probability scores
- choosing a response strategy
- planning for risk
- acting according to the plan.

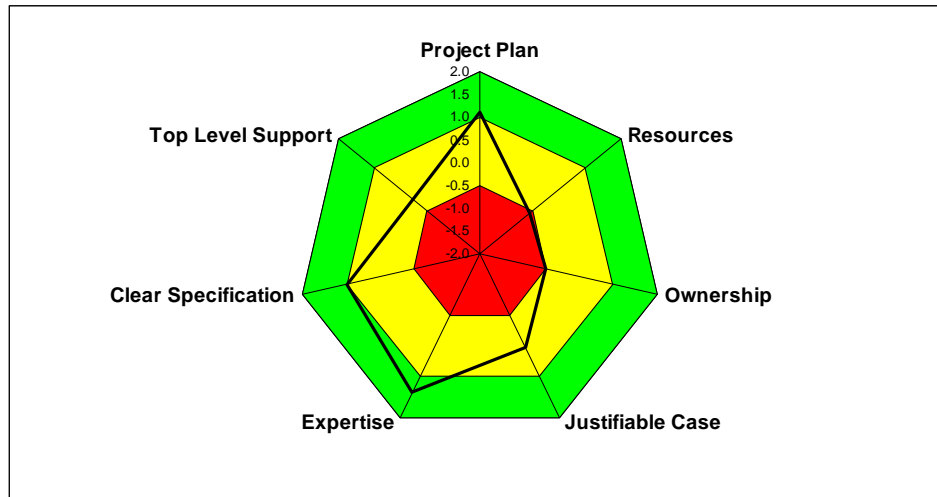
This is all very valid but not sufficient. At most, a Project Board tends to ask to see only the “top 5” risks. Rarely will they ever look at the full log. This means that, whilst they own the risk log, they seldom get involved in assessing what the real risks are and actually deciding what their “top 5” are. Such analysis is provided either by a programme support office or the Project Manager. Project Boards also have a habit of uncovering risks, which the project team never consider and have difficulty in categorising. If this happens, it may be indicative of a lack of communication between the Project Board and project team or that the true objectives of the project are not known or not stable (a major risk in itself!).

What a Project Board really needs to see is the list of Conditions of Satisfaction and the risks associated with each. The Project Manager will probably still do most of the analysis and the Project Board will still not see all the risks, but by focussing them on the outcomes, a sense of connection and reality is achieved.

The health check – a big picture view

Whilst the risk log can be a useful source of information, it relies on a large number of “line items” concerning specific risks. This approach has value but can lead to the “big picture” being missed. This is where the Health Check is useful.

The Health Check looks at the environmental risks surrounding a project. It is an objective view on whether the project is likely to succeed or whether “delusion” and “wishful thinking” have set in. It does this by using a set of standard questions for each of seven topic areas. The Health Check illustrated below is from the Project Workout.



In the example above, we can see:

- the project team members are very clear on what they want to do and they believe they have the expertise to do it;
- there is a lack of ownership by the stakeholders and support from senior management;
- there are few resources to actually do the work.

The tool calculates this as “Medium” risk. However, unless the clear leadership issues indicated here are addressed, this project will be starved to death.

This is a typical profile for a project which has been proposed “bottom” up by teams of specialists and which they are trying to “persuade” the organisation to adopt.

It may look “simplistic” but used properly, the output from the tool can be very illuminating. Who you collect the data from is key. One approach is to ask all Project Board members, a variety of project team members and stakeholders to complete it and determine the level of agreement (or otherwise) across the groups. Usually the lower scores from the groups, give the most realistic picture! It tends to uncover the more “difficult areas” and open them up for discussion. One large organisation brought in a specialist risk consultant to look at seven of its projects. The consultant found this tool in the company’s “tool kit” and calibrated it against his own more rigorous and sophisticated tools. He found a remarkable correlation and honestly remarked:

“If you had used this tool before you contacted me, you could have saved half my fee!”

Of course, if you complete the tool with the intention of “fixing” the result, it will be of no use to you whatsoever.

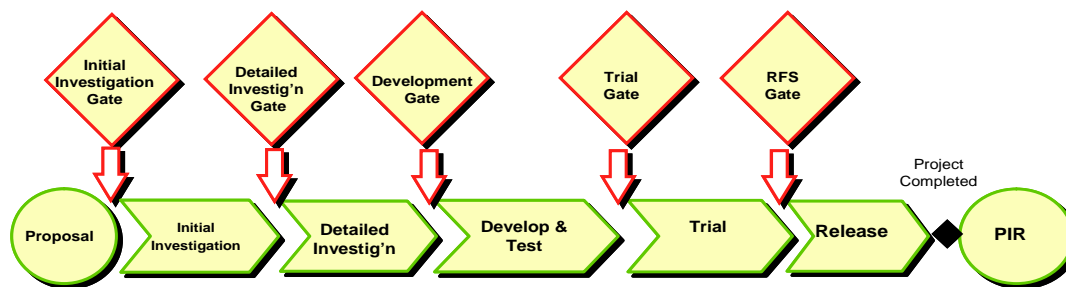
When is the Project Board Really Required?

When you come to executive level reporting (Project Highlight Reports), the attention of the Project Board should be on whether the Conditions of Satisfaction will be achieved and all project reporting should be targeted at this. The Project Board is accountable for the achievement of the Conditions of Satisfaction and the project team is accountable for achieving intermediate delivery milestones. Naturally, the Project Board is interested in whether delivery is being maintained, but only in passing and as a confidence builder. If slippage to intermediate delivery milestones does not affect the Conditions of Satisfaction, then the Project Board's attention is not required - - so don't waste its time! If the project plan is created from the future, backwards by using backcasting, the linkage from Conditions of Satisfaction back to intermediate activities and milestones will be obvious.

A Project Board's most influential and critical time is before the project begins when it specifies exactly why the project is necessary, the desired outcome and what the Conditions of Satisfaction are. Without this focus, many projects fail from day one, top down.

However, that is not the only time a Project Board is required. As a project progresses, the Project Board needs to give direction to the Project Manager to ensure the business objectives will be realised. If things will go wrong, the project will need redirecting. If the objectives are clear, then such redirection becomes easier as everyone knows the business rationale and need behind the project. Redirection may mean the project deliverables are substantially changed and a different approach taken. A Project Board has one aim and if that aim cannot be realised by the means originally planned, then a different approach must be taken.

The staged approach as a risk management tool



A staged approach to projects is in itself a very powerful technique for managing risk. The project is divided into a series of stages, each of which builds on the outputs from the previous stage until the full project scope is completed. This does not negate the “backcasting” approach described earlier, but actually helps define it. The key to the staged approach is to make the **Decision Point** the start of the stage and not the end. All too often, I see staged frameworks being used in organisations, which use the end of stage approach. This drives a number of dysfunctional behaviours:

- the project has no formal start point, with people just drifting into the first project stage
- stages are started without any proper decision as the previous stage has not been completed
- Project Boards are asked to make a decision on historical fact (looking backwards) such as “this stage has been fully and properly completed” So what!

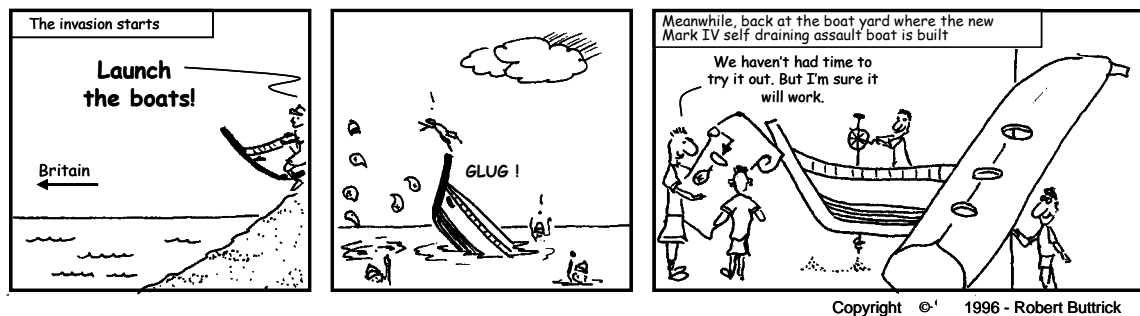
A staged approach where decision points are at the beginning of a project stage drives beneficial behaviours:

- the project and each stage has a formal start point;
- stages can legitimately start prior to the end of the previous stage;
- Project Boards make a decision based on the future and an acceptance of the risk of continuing the project.

Thus gates become definite event driven focal points for a Project Board to reassess the need for the project, the likelihood of the objectives being attained and risks involved. This is true business decision making [3].

In addition, any particularly risky aspects of the project can be investigated and, if necessary, early action taken to drive out the risks (e.g. by bringing risky activities forward to earlier stages) or specific stages may be introduced to address them. Nowadays, product development lifecycles all have a “trial” period, but this was not the case 15 years ago.

If in doubt, try it out!



Simulation – thinking in terms of ranges . . . and then choosing.

Despite risk logs, gating and health checks, we often need to go a step further. The tendency is for Project Boards to think in absolute terms. For example, at the very start of a project the board members like to hear a definite statement such as:

“This project will cost £2,435,678 and take 63 weeks.”

How can anyone know? It is all rather too exact. However most Board members know this and therefore say, it is spuriously accurate and it is better to state it in “round figures”. Say:

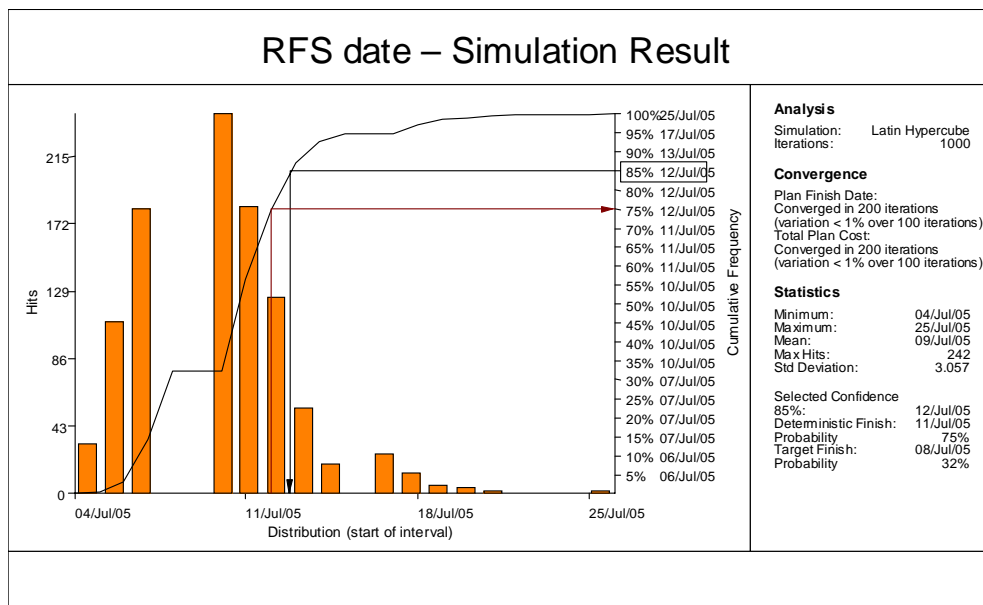
“This project will cost £2.4m and take 60 weeks.”

Notice it is rounded down as Project Boards like to give the project team a stretch target, as work always expands to consume any amount of money and time thrown at it! It would however be more realistic to state the expected range at a point in time:

“This project will cost between £1.9m and 2.8m and take between 50 and 70 weeks.”

Needless to say, the range MUST encompass the required dates for the Conditions of Satisfaction or the project becomes unviable! This approach is more realistic and, coupled with the staged approach to projects, should lead to a gradual and definite hardening of the figures as you move from gate to gate.

How do you choose such ranges? This is where probability simulation, such as Monte Carlo, comes in. Such simulation uses a three point estimate (lowest, most likely and highest) for each activity and then, by applying a large number of iterations, models the different outcomes for the project and the % of times each occurs. The following example is a project, which encompasses a heavy IT component, where, as usual, the IT element is seen as the riskiest part.

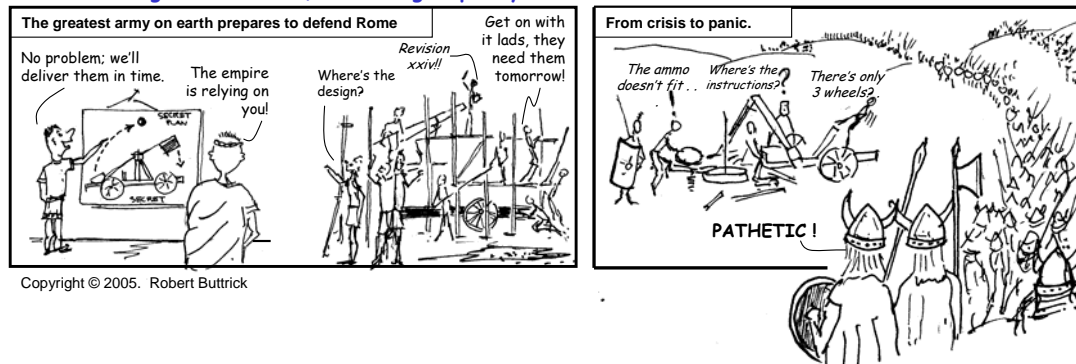


The simulation shows a range of final dates are possible. This picture was presented to the Project Board. The delivery date itself is not the main issue. What is at stake is what happens as a result of setting a date. We can see the range of dates is from 4 July to 25 July. The training, change effort and transition tasks relating to the establishment of a new system are generally non-trivial. These tasks can impact thousands of staff and arrangements for temporary “back-fill” staff during the change over period. If this goes wrong and needs to be replanned, the impact on staff morale and immediate credibility of the system can be negatively devastating. With this in mind the Project Board (who owns the risk) was asked what date it would like to “go public” on and direct the project team to plan to. The immediate reaction from some members was to do it as soon as possible and “*make the project team deliver on time*”. Just how they would achieve that was a mystery! However, others started discussing the risks associated with “getting the date wrong” in terms of reputation, staff morale and user confidence; in other words they were acting like a business and benefits focussed team, assessing risks and making a considered decision. In this case, they chose the 17 July (95% confidence level) and it was met. In the view of the Project Board, waiting the few the extra days were well worth it.

The Bottom Line

Projects are vehicles for creating new capabilities and introducing change into organisations. Change usually results from using the new capabilities which were created by the project team and, if all goes well, the organisation will realise benefit. However, things will not usually go as planned and it is the role of the Project Board to keep focussed on the business objectives, make trade-offs on time cost and quality, if needed and direct the project accordingly. Risk is at the heart of this and techniques such as the Conditions of Satisfaction, Health Check, gated frameworks and probabilistic simulation can help to keep a Board focussed on its prime accountability for benefits rather than getting dragged into the detail of delivery.

When working to a deadline, don't forget quality.



References

- [1] Buttrick R A, The Project Workout, FT Prentice Hall, 2005. See also <http://www.projectworkout.com/>.
- [2] Fowler A and Lock D, Accelerating Business and IT Change: Transforming Project Delivery, Gower Publishing, 2006. See also www.isochron.co.uk
- [3] Buttrick R A, The Role of the Executive Project Sponsor, FT Prentice Hall, 2003.