

Project Risk Analysis

Don't Miss Out on a Valuable Management Tool

If you fill out a “project risk register” only because it is required by some governance process, you’re missing a powerful investment analysis and planning tool and missing the chance to

- Choose among different project approaches with different risk profiles;
- See at a glance which risks you should be most worried about;
- Choose what to do about risks, and calculate the ROI of alternative mitigations;
- Invest in readiness to react effectively if things do go wrong.

Make a list of risks to your project and estimate the probability and impact of each. In your risk analysis, pay attention to these points:

- Be sure you analyse probability and impact independently. Impact, especially if lives are affected, can be so emotive that it tends to affect assessment of probability. I’ve seen risks that are very unlikely, but would result in death, listed as “medium” or “high” probability. Yes, if the thing happens, it would be really bad. But that should not change your assessment of its probability, or you will overreact and poorly distribute resources.
- *Quantify* your probability and impact ratings using historical data and research. This avoids subjective debates and allows you to budget and calculate ROI on mitigations.
 - E.g. A risk with \$1M impact and 20% probability has an expected cost of \$1M x 20% = \$200K. Compare the cost and effect of proposed mitigations to the expected cost of the mitigated risk. Is the mitigation worth it?

Analysing possible mitigations is an important part of the risk analysis process — indeed it’s *the point* of the process. Consider:

- Many mitigation plans focus only on reducing the *probability* of risks, and often miss addressing *impact*. Seek mitigations for both.
- Re-chart what your risks would look like if the proposed mitigations were applied. Make sure that every table and chart is clearly labeled “unmitigated” or “mitigated”.
- Good mitigation is rarely free. Fund it — risk mitigation is part of the cost of the project.
- Mitigation will probably not reduce risk to zero. What remains, “residual risk”, should be accepted by an authorized person as part of deciding on that risk management plan.

If there are several project implementation options, risk-analyse and compare the costs and residual risks of each alternative. This information will help you choose the best approach.

Identify and analysis multiple possible mitigations to each risk. Choose those that give a positive return by costing less than the reduction in residual risk cost they generate.

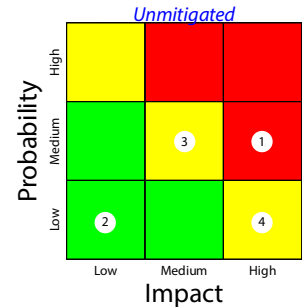
For example, imagine we’re considering implementing an AI-backed Chatbot to interact with clients on our web site. We might identify the following risks.



Risk		Unmitigated Probability	Unmitigated Impact
1	Lack of skilled resources	Medium	High
2	Lost opportunities to redirect or upsell	Medium	Low
3	Client upset when they learn they're talking to AI	Medium	Medium
4	Chatbot gives wrong or embarrassing replies	Low	High

These can be clearly compared on a “heat map” chart. Simple coloured cells in a 3x3 or 5x5 matrix are usually good enough for our purposes. What to worry about (and what not to) stands out clearly.

Next, identify how we could reduce those risks and what the resulting mitigated risks would look like.



Risk	Unmitigated		Mitigation	Mitigated	
	Prob	Imp		Prob	Imp
1	Med	Hi	Set up contracting supply arrangement	Low	Hi
2	Med	Low	Program chatbot to collect follow-up contact info	Low	Low
3	Med	Med	Chatbot clearly self-identifies, offers human	Med	Low
4	Low	Hi	5-second delay, human review in “probation period”	Lower	Hi

This kind of risk analysis is relatively simple yet is an incredibly powerful management and communication tool. Do it because it helps you, not merely to comply with some rule.

Richard McDonald provides strategic consulting services after retiring from the ADM level of the Public Service, as Chief Information Officer of the Canadian Security Intelligence Service.

His career included 18 years in government, 17 of which were in the classified Security and Intelligence community, in positions from Director to ADM level and in roles such as Chief Information Officer, IT Outsourcing and Public-Private Partnerships, Strategy, Architecture, IT Security, Information Management, and Information Technology. He has also led innovation programs, mentoring programs, and staff development initiatives. Prior to government, Richard worked for 23 years in the Nortel family of companies, in technology strategy, product management (including a 2-year international assignment in Japan), security, IT management, and software development.



Richard holds MBA, MSc (Comp Sci), and BSc (Comp Sci) degrees, as well as a diploma in photography. His other interests include Astronomy, Photography, Motorcycling, and Martial Arts.