



Achieving Stakeholder Trust with Qualitative Risk Analysis

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At the beginning of large projects, risk is one of the most important areas to be analyzed. Of course project managers rely on many tools for analyzing and managing risk. We won't walk through all these tools here. What we'll do instead is review one of the specific processes outlined in the *PMBOK® Guide* which provides one of the most important opportunities to achieve that critical (and elusive) ingredient in the project effort: stakeholder trust and confidence.

As in most areas of project management, the task of managing risk throughout the project can only become practical after stakeholder buy in is achieved. One of the best times to contribute to your stakeholders' "confidence investment" is directly after risk identification, during your **qualitative risk analysis**. The *PMBOK® Guide* defines qualitative risk analysis as "the process of prioritizing risks for subsequent further analysis or action by assessing and combining their probability of occurrence and impact." Note that the *PMBOK® Guide* regards the process of qualitative risk analysis as a preliminary step to real project risk management. Comprehensive risk analysis and management comes later, during quantitative analysis and the completion of your risk management plan. However, as far as the stakeholders are concerned, the qualitative phase is the time to place their minds at ease regarding the potential dangers to the project.

There are several reasons why this is a key opportunity. For one, it comes directly on the heels of having recently accounted for every risk that anyone involved in the project can think of, and this can result in a room of nervous stakeholders with risk fresh in their minds. What better time to calm their nerves and achieve confidence in the project? For another, the tools used to actually quantify and comprehensively analyze risk happen later, behind the scenes and out of sight of the stakeholders. However, a large part of your qualitative analysis can happen right there in the room, with the active participation and understanding of the stakeholders. And unlike quantitative analysis, it can be relatively fast and cheap. Add to this mix the fact that quantitative processes are often expensive and technical, as well as intimidating to high-level stakeholders who may not be familiar with the specifics, and you have a powerful case for working to win the stakeholders' confidence in your risk management abilities right at the start, during your qualitative process.

From a project manager's point of view, one of the great beauties of qualitative analysis is the fact that it can seem very quantitative to stakeholders. Though not actually quantitative, tools such as risk scores, data quality assessments, and matrix tools can be reassuring to your stakeholders, as they're left with an awareness that their capable project manager is using some very concrete tools to manage the possible hazards of their project.

So, let's review the basic tools associated with qualitative risk analysis. The final product of your analysis will be two important references: the risk register and a probability/impact assessment. These references are the foundation upon which you'll build your project risk management plan and an understanding of how you'll respond to risks when they occur.

1. So, you've named your risks one by one... (and remember, you are never done!)

The raw foundation for what will become your final risk register is simply a list of any risk that anyone can identify. Common sense is enough to identify some risks. To identify others, your project team should review as much documentation and organizational data as possible, including lessons learned from past projects and institutional knowledge from within the organization. Your team should also commission or perform as much research as your organization has the resources to justify. At this point in your project you should have a list compiled of assumptions associated with the project. (Remember, assumptions must be consistent throughout the project.) Review your assumptions for inconsistency to discover risks.

Any inaccuracy or incorrect information found in your assumptions, research, or organizational data translates as a risk. Make a list of these risks, as it's what you'll use to develop your risk register. Throughout the process, remember: About 15% of your risks will remain unknown until they occur. (A scary thought perhaps, but it's better to be realistic about these unknowns beforehand so you aren't caught completely by surprise later.) **You can only ever identify about 85% of your total project risk.**

Depending on the scope of your project, risk identification can be much more extensive than we can explore here. However, the steps we just reviewed give a quick idea of the priorities for identification as they're outlined in the *PMBOK Guide*®.

2. Prioritize your risks using a probability/impact assessment

To begin prioritizing your risk, you'll first assess the probability, followed by the impact. For qualitative risk analysis purposes this process is simple. Your stakeholders, or whoever is responsible for defining risk factors to the project must review the list you have compiled, and assign a score of one through four to each risk for both probability and impact. Using a one through four scoring system is important, as it forces respondents to make a judgment call either above or below the 50% mark. Do not let nervous stakeholders ride the fence!

Assign a level to each number that corresponds with your own project. Example: For probability, a score of one might indicate "very unlikely," two might indicate "unlikely," three might indicate "likely," and four might indicate "very likely." For impact, one might indicate "tolerable," two might indicate "measurable impact," three might indicate "a threat to project success," and four might indicate "a risk that absolutely must not happen."

3. Organize the assessments using a probability/impact matrix

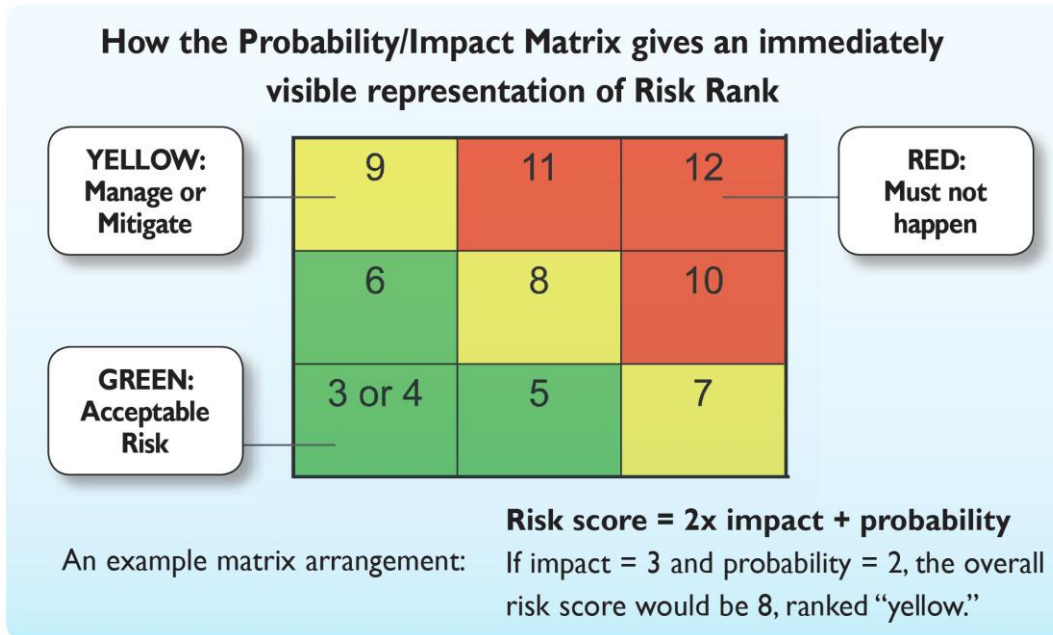
After you have attained "one through four" scores for a risk's probability and impact, figure out the average and plug the score into a **probability/impact matrix** to give your stakeholders a visual representation of risk severity. However, before you combine your scores, there is an important consideration: **impact should always be given more weight than probability**. For example, suppose you have a risk factor that could result in a 5% increase in project cost, and which your team estimates is 30% likely to happen. Naturally this carries less concern than a risk factor which could result in a 70% cost increase which is only 10% to occur. Even though there's a disparity in the ratio, the risk with the greater impact carries more need for attention. Therefore, after you assess your scores and generate an average score for each, simply double the score for impact.

So, you have your average scores for probability and impact and you have doubled the impact score. Now, look at the scores for each individual risk and add them together to assign that risk an overall score. You'll then map this score to the probability and impact matrix, as shown below (**figure A**). The matrix is really just a fancy word for chart. Number a grid from 1-12 diagonally as shown, and color code the grid with green for the low tiers, yellow for the middle, and red for high numbers. This chart will easily depict the severity of the risk.

Finally, compare the risk score to a direct definition of what that score means to your actual project, as shown below (**figure B**). This type of tool gives your stakeholders a valuable advance on their sense of confidence in the project's risk management plan, as well as their own understanding of the individual risk.

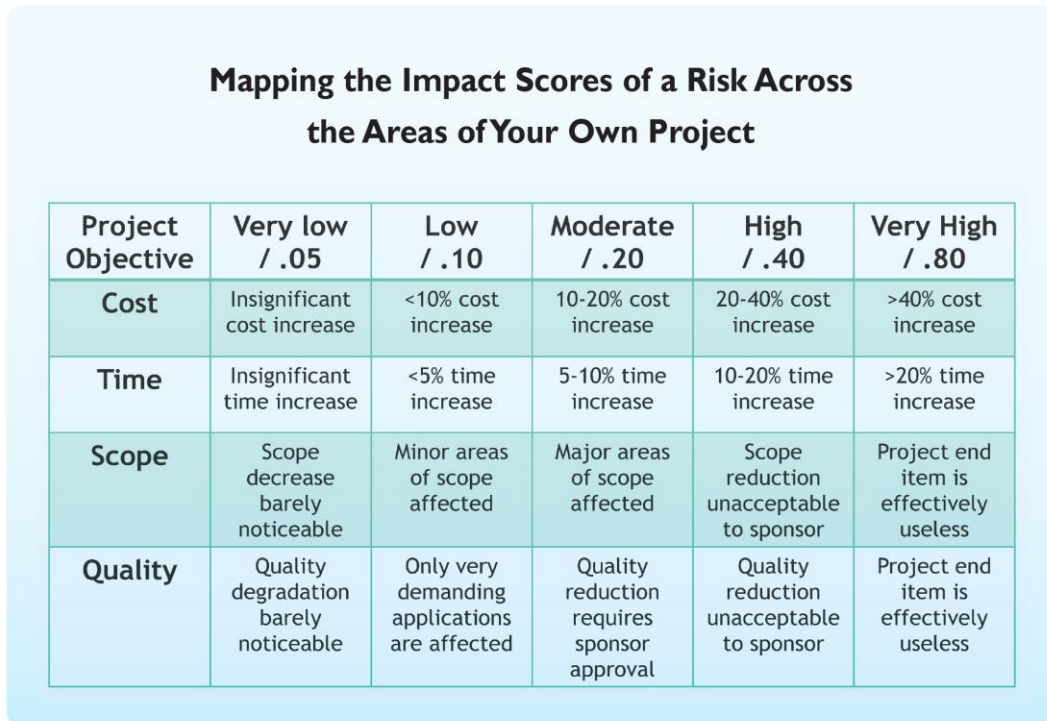
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Figure A – Using a Probability/Impact Matrix



From ASPE's PMP® Exam Preparation Boot Camp, © Dave Caccamo, PMP

Figure B – A simple example of how to compare the impact of a risk to your project



From ASPE's PMP® Exam Preparation Boot Camp, © Dave Caccamo, PMP

4. Rank the Risk and do a Review of Assessment Quality

Wherever your combined probability/impact score falls on the matrix, that's your corresponding risk rank. The rank highlights the risk's order of priority in the risk register, which can now be assigned. As a final step in this technique, your team should sit down and review the list of risks and their corresponding probability/impact scores for quality. Take a fresh look at the scores and decide how well the assessments lines up to your judgment based on the following criteria (as specified in the *PMBOK® Guide*):

- **accuracy**
- **quality**
- **reliability**
- **integrity**

Revisit your scores if necessary and make sure your project reference documents are as accurate as possible! Make sure your team has given enough attention to the greater importance of impact over probability.

5. Prioritize your risks in terms of urgency

Now you'll consider time as it affects your risks. The final process that needs to happen in order to create your risk breakdown structure is an evaluation of urgency. Run through your risk register as it stands and have your project team make an educated guess as to which risks will occur the soonest. Rank your risks accordingly and use this rank to determine action items which need to be assigned to the project team the soonest. Urgency is a critical consideration when generating your overall risk management plan, as you will need to be aware of which risks to begin addressing immediately if they loom in the near future.

6. Categorize risk the *PMBOK® Guide* way

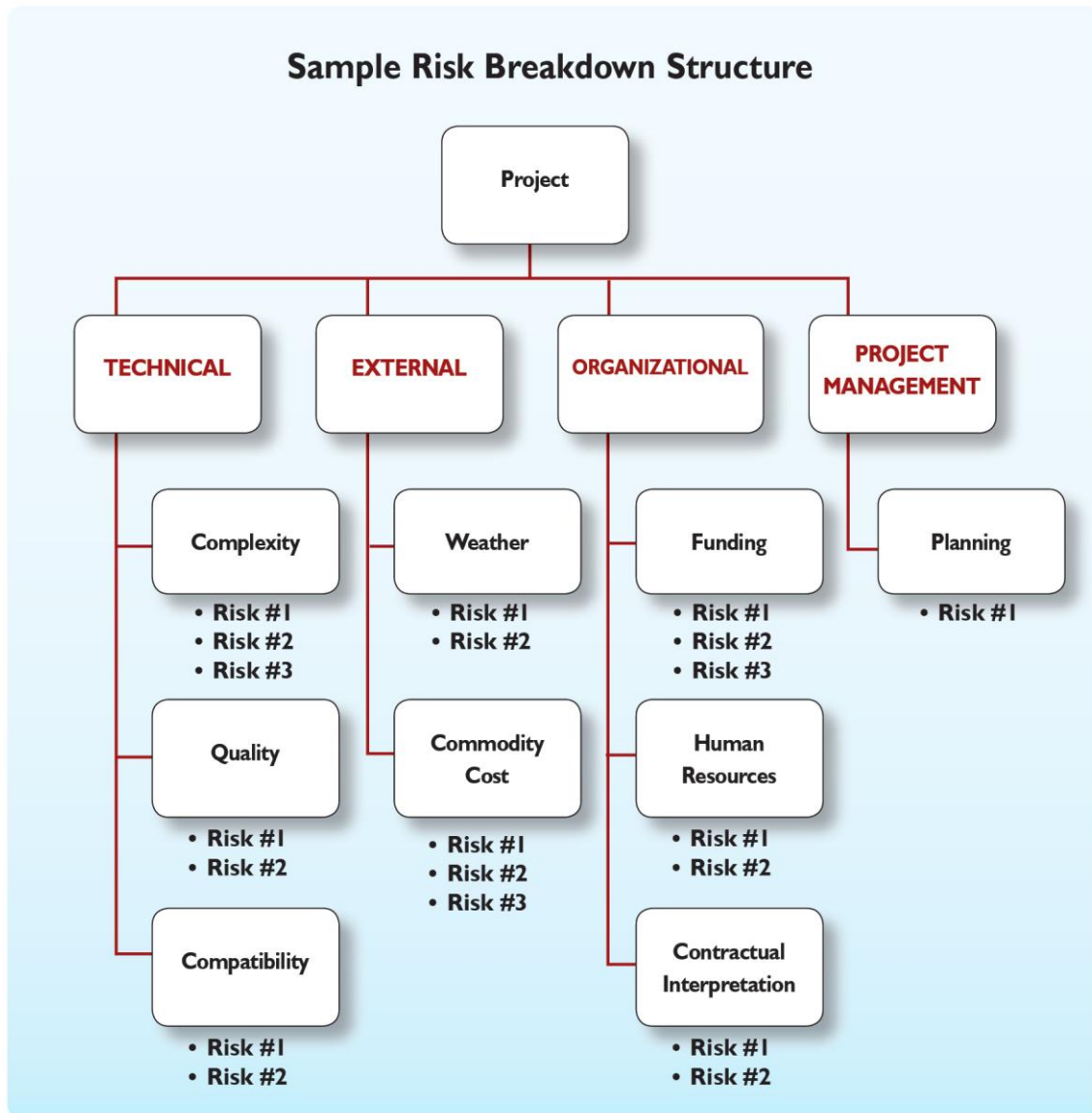
The *PMBOK® Guide* begins the task of categorizing risk by first assigning it one of four sources from which it originates.

These sources are:

- **technical**
- **external**
- **organizational**
- **risks associated with the actual management of the project**

After you've assigned each risk a category, you can begin to group risks together for more effective response, and plug them into the Risk Breakdown Structure as shown below. The bottom level of your risk breakdown structure can be used as a checklist throughout the project. But remember to remind your stakeholders that no checklist can be complete. You should never be done keeping a sharp eye out for potential risks. When dealing with stakeholders, the more forewarned, the more forearmed. It should be your goal to look back and see that you were able to approach the 85% mark on upfront risk identification. If you were, then your risk identification process was successful.

Figure C – Organizing your project’s risk with a Risk Breakdown Structure



To output the final Risk Breakdown Structure for the Risk Register, you will plug in priority of risk as you complete the above steps. Make sure a person is assigned to each risk!

Good project managers know that each and every risk involved in a project can never be accounted for completely. There will be risks no one can predict. Stakeholders know it as well, and that knowledge can make them understandably nervous. Hearing you acknowledge this fact, then seeing you present them with concrete action items based on orderly process and named "formulae" will go a long way towards feeling like there are structured, if not quantifiable, tools being brought to bear on their -- and your -- project.