

Top IT Project Risks and What to do about them

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Risks are those things that may derail your project and keep it from a successful completion. They are any unplanned change in your project... and we all know they happen!

Even though we all need to learn the mathematical basis of risk analysis, it's often very time consuming and difficult for project managers to complete. As a result, risk planning is often skipped.

In this article, we discuss the typical risks that an IT project would encounter and what the project manager can do about them.

The top risks on IT projects

This list was compiled from information in several sources as well as personal experience of the consultants and IT professionals interviewed. We've found that there are Ten Universal Risks to Software Projects. They are:

1. **User involvement**
2. **Executive support**
3. **Requirements inflation (or scope creep)**
4. **Schedule flaws**
5. **Unrealistic expectations**
6. **Staff turnover**
7. **Project management**
8. **Specification breakdown**
9. **Technology and uncertainty**
10. **Not knowing what is at stake**

Following are the project impacts of each of these risks...

1. **User Involvement:** This is listed as the number one reason for project failure! If the users are not intimately involved in planning the project, they may add requirements or change specifications later in the project, when it causes time delays and cost increases to your project. Be cautious of the person that claims to "know what the user really wants." Often the easiest answer is not the right answer. Early involvement by the users is the key, then keep them updated and manage their expectations throughout the project. Users can make or break a project.
2. **Executive Support:** While user involvement is key, executive support is just as critical to your project. Have you ever watched a project that had an executive pushing for it? The executive can really make things happen for your project. However, all projects are not as critical and don't require executive involvement. There are several things you can do to gain support for our project 1) Make sure you know who your project sponsor is and 2) make sure that the sponsor knows what it means to be the sponsor. When starting your project, during the earliest phases, make sure the project sponsor knows they are the sponsor and what that means to you as the project manager. They are there to help the project succeed, let the sponsor know that. Roles and responsibilities extend to the project sponsor as well as the team.
3. **Requirements Inflation:** Let's call this Uncontrolled Requirements Inflation. Some requirements changes are necessary, however they need to be controlled in order to meet project objectives. As we stated above, not involving the users is one of the biggest problems found in IT projects. This causes requirements inflation because the users begin to see things in the project and want to add their two-cents to it too. But there is another cause for this risk – Gold Plating. Gold Plating is when the development team wants to provide the best product possible and adds little extras to the product as they are developing it. As a result of Gold Plating, often resources are so busy with the Gold Plating that they are not available for the scheduled project work. In the end, the product may not be what the users

and requirements specified, creating the risk that the project may not succeed. Control requirements changes with a good change management process. A “requirements lock down” is not practical so you need to document every requested change and require justification for any additional costs or time the change will cause.

4. **Schedule flaws** are perhaps one of the most common problems in project management. Schedule flaws may originate from many sources like lack of a thorough understanding of the project deliverables and the work involved, low estimates on the work or unrealistic estimates based on meeting an unrealistic end date. But the biggest reason why schedules tend to be flawed is that the project is planned assuming that all will take the most optimistic path possible. Risks are ignored. Things like “no one will get sick”; “we’ll hire people that already know this stuff”; “nothing external to our project impacts us”; or “if it never snows in Pittsburgh...” These are some of the optimistic goals we tell ourselves when we’re planning our projects. Schedules are truly difficult to create. Several techniques come to mind to address schedule flaws: 1) To create a realistic, achievable schedule some level of risk analysis is required. Analyze risks and adjust the schedule (and budget) accordingly. 2) Use three-point-estimating to determine more meaningful estimates. 3) Have the person that will do the work estimate the work. 4) If possible, compare estimates to actuals in past projects to find out how much projects tend to overrun and adjust accordingly. 5) Don’t be afraid to cut scope if the end date is fixed.
5. **Unrealistic expectations:** Expectations are the sort of things that keep changing and growing if left un-managed. If the client and user are not kept abreast of project progress, issues and resolutions, they may be expecting something completely different than what is developed. The end result is a product that isn’t what they want and the development team is back re-developing it after it has been refused by the client. Managing expectations as if they may impose a risk to the project will improve the project’s success and ensure that the deliverables do truly meet expectations. Specific fixes: Jointly agreed to and signed requirements, budgets, schedules, design and test plans are one way to make sure that everyone has the same expectations.
6. **Staff Turnover:** Even with the sluggish economy we’re experiencing today, people often switch jobs and companies. But, leaving the company is not the only problem faced by Project Managers. Movement within an organization can cause havoc on a project as well. For example, if you have someone on your team that is now a business analyst, but used to be the star DBA for the organization, you may find that person being pulled off of your project, unexpectedly. If there is such a risk, it probably has occurred before. Cross training and clear role definitions for your project can help. In Risk #1 we discussed executive support. If this happens, being able to talk to the project sponsor can be worth a lot to your project. If staff changes are likely, prepare contingency plans, begin a cross training plan prior to actually losing the staff member and add it to the risk management plan and state that significant staff changes will impact both the budget and schedule. Be aware that bringing a resource onto a project midstream will require ramp-up and training time. This again means delays and increased costs.
7. **Project Management:** As a project manager, I hate to admit that the project manager may be introducing risk into the project. The project manager can do exactly that. If they refuse to involve the users, issues are not resolved, they don’t want to “bother” executive management, or they develop the schedule and project plan mostly by themselves, they may be introducing risk into the project. The project manager needs to stay on top of the progress, resolve (or escalate) issues in a timely manner and avoid spending too much time focusing on one aspect of the project (like playing with scheduling software) to reduce the risk they are adding to the project. Specific fix: Have regular times set aside to communicate with sponsor and stakeholders. Be diplomatic but frank in communicating risks. Over communicate. People don’t hear or remember all the information they receive the first time so you have to repeat it and use different delivery methods (face to face, charts, e-mails, websites, metrics etc). Understand when issues/risks have to be resolved in order to avoid adverse impacts on the project. If those deadlines will not be met, do not hesitate to escalate the matter to the sponsor.

8. **Specification Breakdown:** This can happen for many reasons, the specifications are not developed correctly, too many short cuts were used, the development team didn't understand the specifications, the users didn't understand how their requirements tied in to the specifications... The list goes on. The fact is, this is a very common risk to any development project. If the requirements are not fully understood and the goal is not understood, all the steps in between may be at risk too. Requirements training for your business analyst and entire project team may be the answer to ensure that requirements are defined and understood by all.
9. **Technology and uncertainty:** We can't ignore technology when we're talking about Information Technology projects. Every IT project has some level of risk just because of the nature of IT projects. Every project manager and sponsor needs to ask some specific questions to help them uncover risks associated with technology and uncertainty: Have we done this before? How familiar are we with the platform/environment? Do we have experience with the software, the network, and the interfaces to the customers? Are the functions we are trying to get the technology to perform reasonable? If you are trying to install a new platform, using new software, with new interfaces to perform new functions the level of uncertainty (RISK) goes way up. Cost, schedule and quality estimates all have to be adjusted accordingly.
10. **Not knowing what is at stake:** Often risk management or risk assessments are not conducted because there is no clear understanding of what is really at stake if the project fails. I once assisted a co-worker with a project health check. The project was failing and things were running out of control. The first question I asked was: "how much money is at risk?" The project manager didn't know. Turns out 10's of millions of revenue were at risk and the management team was hesitating to assign an additional project administrator at maybe \$100k a year. The administrator was not going to solve the technology problems but he/she could and did help collect metrics, helped produce more realistic schedules and other project management work products that freed-up time to allow the senior project manager to address risks directly. Conversely, if not much is at stake, then a "muddle through" approach might be the best one. But if the PM and Stakeholders don't know and agree on what is at stake you cannot do risk management.

Note that most of these risks are not associated with the technology, methodology or information which we usually think of in IT projects or software development. The risks are associated with planning the project and including the PEOPLE involved in your project. Many are communications and human resources issues rather than technology. Most people in the IT industry are there because they are very intelligent and can pick up on difficult concepts quickly. Thus, technology is usually not a problem for them. They also tend to shy away from the "touchy feely" kind of stuff, or soft skills, and it shows in the biggest risks to IT projects.

VBH Project Consulting offers a Scope and Risk management course that introduces a simple technique to use when planning risks on any project. Please look for our project management and business analysis training at www.vbhconsulting.com.