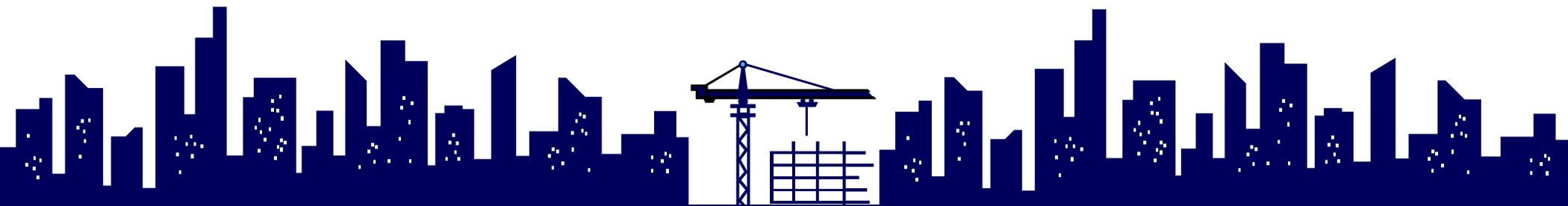


# The Project Risk Tightrope



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**How Savvy Owners Prevail While Others Fail**

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As a kid, I saw one of the Wallendas walk a tightrope. It was a pretty amazing feat. The Wallendas walked tightropes every day and seemingly trained from birth to do so as a family. You or I would probably fall off. We don't have their focus or their training. Whether you know it or not, as the owner of a major capital project, you may be walking a tightrope of project risk. Falling off will kill the project.

As the project owner, your project is probably not your core business. It's a way to make your core business more successful. You've likely spent most of your career focused on your core business rather than thinking about capital project risk. Guess what? While you've not spent most of your career thinking of project risk, many of the other stakeholders on your project have. And the way most projects are designed, their interests are not always your own. How do you think you will fare on your tightrope?

A typical project team includes an Owner, a Designer (Architect or Engineer), and a Constructor (or Contractor) as well as layers of other consultants, financial institutions, vendors, subcontractors, unions and outside forces such as permitting agencies and other regulators. Of the three primary stakeholders, Owners typically have the least experience with major projects. To the Owner, a project is a means to an end. To the Designer and the Contractor –

building projects is the end. More precisely, making money from building projects is the end. This is what they do. Every day. 24/7. 365 days a year. Differences in knowledge and experience can lead to problems that quickly morph project teams from donut-eating buddies in a project trailer to adversaries in a courtroom. Owners must be savvy about the way they set up and manage their projects.

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**Projects Fail.** I'm sorry if you thought that your project would go perfectly as planned. But it's a basic law of project management that shit happens and people (and organizations) suffer for it. While nothing is guaranteed, savvy Owners can make a huge difference

in influencing the success of their project by thoroughly understanding and implementing a risk management approach to focus and guide their project management efforts.

That is what puts you in your current position. You are walking a tightrope and you may not even know what constitutes falling off. Although you can see and fear the *ground below you* what you need is a way to keep from falling. Risk management can serve as a framework on top of a clear understanding of project success pieces acting like a balancing pole and a harness to keep you from falling.

Savvy Owners work to execute well by putting together the six project puzzle pieces described in [Piecing Together the Project Puzzle](#). Without these pieces, projects fail:

1. **Alignment of Purpose**
2. **Coordinated Effort**
3. **Open, honest, effective communication**
4. **Detailed planning**
5. **Rapid execution**
6. **Learning and adaptation**

But these are principles rather than a management technique or approach. Risk Management can serve as the glue that binds together the entire project approach and lets you cement the right puzzle pieces into a picture of project success. It can serve as a framework, a scaffolding if you will, upon which to build out the rest of your project management approach. This manifesto focuses on Risk Management and its importance to the savvy Owner.

**A RISK is a potential danger or opportunity. It is something that COULD happen. And if it does happen, it will IMPACT your project. For better or for worse.**

*You can always make your project worse, but there is a limit to how well you can do (in terms of cost, schedule, and productivity). The decisions that frame this limit are like your project's genes. You make most of them early – even at conception.*

While, by definition, risks might be positive or negative, most of our focus is on the negative risks, the dangers. Murphy said that what can go wrong, will go wrong. Sometimes, even what CANNOT go wrong still goes wrong. If Murphy had been a risk manager, he would have added a few caveats but you get the idea.

**The ability of an Owner to influence and mitigate project risk rapidly diminishes as the project progresses.**

You do not have all day to understand and manage your project risk. It acts while you sleep, while you have endless meetings, and while you put the power in your power lunches.

You must act early. As a project progresses, your ability to successfully impact its budget, schedule, scope, quality, and RISK

drops off the proverbial cliff like the Coyote chasing the Road Runner.

The Pareto Principle, the 80/20 rule, applies to projects. In this case, 80% of your ability to positively impact the project happens before 20% of the project is complete. Of course, you can **ALWAYS** negatively impact the project. You can

always make things worse, but there is a limit to how much better you can make them. Regardless of when you start.

Decisions made early in your project:

1. Count for more than later decisions, and
2. Put constraints on all later decisions.

This truth is readily apparent in manufacturing. The decision to manufacture a high-end sports car rather than a low-end economy car already determines more about the project's costs than later, more detailed decisions such as how to finish the interior.

The same principle applies to construction projects. It might even be worse. Maybe a 90/10 rule. Or even 95/5. That means you must be on top of your project from day 1. Your early decisions regarding the team that you are putting together for the project, the scope, the budget, the timing requirements, and technical design will impact your project more than your later ones.

### **But isn't that why I have a contractor or construction management firm, to manage my project risk?**

As the project owner you still hold the ultimate risk. The headlines will name your company if someone dies in a construction accident. Your company will suffer the financial loss if your project is late or over budget.

If the project loses, the contractor might lose. But you own the project – and the loss. No ironclad contract, no wishful thinking, no sticking your head in the sand will do. It's yours.

So let's make sure that doesn't happen, shall we?

Risk is made up of two primary ingredients: **probability** and **impact**.



**PROBABILITY**

**Probability** defines the likelihood that the specific risk will occur – without any intervention on your part.

**Impact** tells us what will happen if the risk occurs. Will it cost money, delay the project, injure someone, or make the finished product fail?



**IMPACT**

An asteroid striking the center of your city impacts you. So does a pie in the face. If both were to happen today, which would catch more of your attention? That's the impact side of the equation.

Any risk you could dream of could impact your project, but some are more likely than others and some are worse than

others. Fortunately, the most likely are not usually the worst imaginable.

A failed project could wallop your core business' Competitive Advantage by sapping you of much needed time and capital while failing to meet the needs that drove you to undertake the project in the first place.

Effective risk management is an iterative process that helps you answer these questions:

1. What are our key risks?
2. Are we focused on the risks that matter?
3. Who is accountable for the key risks?
4. What are they doing to manage those risks?
5. Are resources aligned to our risk profile?
6. Are we accepting an appropriate level of risk?
7. Are we receiving a fair return on that risk?
8. Who is monitoring the significant risks?
9. How are we improving key controls so that we can recognize when our efforts are not working?
10. Are we continuing to look for new risks in order to manage them or take advantage of them?

*A failed project could wallop your core business' Competitive Advantage by sapping you of much needed time and capital while failing to meet the needs that drove you to undertake the project in the first place.*

The Risk Management Process itself has been described in a series of four or six steps by various sources but they all include the following elements:

1. Planning
2. Risk Identification
3. Assessment and/or Analysis
4. Management or Response Planning
5. Response Implementation
6. Monitoring

### Planning

In the planning phase, you want to determine who will run the risk management process, how reporting will be done, how it will tie into other areas of project management or corporate processes (accounting, etc.), what resources will be devoted to the process, and the approach to be used. During this phase you will

need to flesh out the rest of the process so you know what you'll be doing, who will be doing it, and when it will be done.

### Risk Identification

The goal of Risk Identification is to create a list of project risks. This list, typically referred to as a risk register, is often

put together based on categories of risk (e.g. Financial, Regulatory, Environmental). The net should be widely cast during this phase. Further phases can winnow the list to eliminate those that should not be on the register. There are a range of techniques that can be used to assist in Risk Identification including:

- Looking at past projects
- Experts who bring a range of experience across project types and industries
- Brainstorming
- Facilitated Sessions

### Assessment and/or Analysis

During the Assessment or Analysis Phase, you must now determine the two key facets of risk, probability and impact, with respect to the risks that you identified in the previous phase. This phase might involve qualitative approaches as well as the use of quantitative techniques. Most likely, you will combine the two in a mix that is tailored to your needs and capabilities. The end goal of this phase though is a clear (albeit usually relative) understanding of how likely each risk is to occur and how much harm or benefit will accrue should it occur.

Both probability and impact are important. Some common project management tools only identify part of that equation. For example, project scheduling using the Critical Path Method successfully identifies the activities that will have the most immediate impact on your schedule should they be late, but it fails to tell you how likely any activity is to be late. The probability is somewhat assumed in the estimate of the duration but is seldom given much thought. And that likelihood could change the whole game.

### Management or Response Planning

In this phase, your focus is to decide what strategy you will implement for each of the risks you have identified and analyzed. There are four primary strategies. You can try to give the risk to somebody else (Transfer or Sharing). This is commonly implemented contractually or by buying insurance. You can try to Avoid the risk altogether through a variety of means depending on the type of risk. You might Mitigate the risk or make it either less likely to happen or less impactful if it does happen. Or you might Accept the risk. If you accept the risk, then you need to make sure you



have additional funds allotted to handle the risk should it arise.

Beyond the strategies chosen, you must also identify whose responsibility it is to manage each risk and you should identify a timeframe in which you expect to either know that the risk will come to pass or that it is no longer a risk. For example, if one risk is that you will not get construction permits, this will happen early if it happens and once you have the permits you know that it is no longer a risk. In addition, you need to define controls that will let you know if the risks are coming to pass or if you have successfully managed them. These might be as simple as being aware of weather reports to see if your risk of an unusually harsh winter is coming to pass or as complicated as the development of a new regular report to ensure that a major equipment procurement risk is adequately covered.

### **Response Implementation**

During this phase, you go forth and conquer. Just kidding. This is the phase where you implement the strategies that you decided to adopt for each risk during the last phase. With those strategies should have come actionable timeframes. This is when you act.

### **Monitoring**

The Risk Management process is iterative. Once you have begun implementing your planned responses, you will at

times be doing additional planning, identification and assessment, and response planning and implementation. Throughout the remainder of the project you will also be Monitoring with two goals in mind: understanding the status of your identified risks and detecting any previously unidentified risks that might be emerging. During this phase you use controls designed during your response planning as well as other project management tools and data sources to ensure that you are successfully managing your risks and identifying any new risks.

**Effective risk management** requires the ability to combine an understanding of your goals for the project with experience in applying the risk management process to real world projects and an understanding of how the project puzzle pieces fit together to achieve project and business success. This combination enables you to avoid the two traps of (1) doing nothing due to inertia and not knowing what should be done or (2) spending a lot of time, effort, and money building and implementing a process that will not meet your needs.

### **How Mature is Your Organization with Risk Management?**

Maturity scales from 1-5 have been applied to many areas of management. If we apply this idea to Project Risk Management, a 1-5 scale would look like this:

1. Some processes are used but they are applied inconsistently and not standardized.
2. Standardized processes exist but inconsistently implemented. This is the “dusty binder” phenomenon. If you asked your team if they have a process, they will pull a dusty, seldom-used binder from the shelf and say, “Yes.”
3. Systematic processes are consistently applied across projects.
4. Project risk management processes have been fully integrated with other organizational processes.
5. Your team has fully integrated processes and regularly incorporates lessons learned and works to continuously improve the process.

In my experience, good contractors typically rate from 3-4 on the scale while owners rate from 0-1. Contractors are in this business all the time and have become savvy at managing their risks. Some of the more successful ones have become quite mature in their processes.

Typically Contractors are ahead of Owners because this is what they do, all the time.

**The gap is real.** And it provides a significant advantage to the Contractor because their number one means of managing risk is to transfer it – either to their subcontractors or back to you.



Because Contractors understand their project risks and you do not, their advantage shows up in the following aspects of the project:

- Contract Terms & Conditions, Supplements, Addendums, and Change Orders. Especially through language designed to shield the Contractor from risk by transferring it back to the Owner.
- Initial Schedule Development and Updating
- Contingency and allowances
- Design Modifications and Requests For Information
- Negotiations throughout the project
- Correspondence and documentation including meeting minutes, monthly reports, letters and memos, etc.

As your organization’s Project Risk Management capability matures, you can begin to gain other benefits beyond the project in question including the ability to take lessons learned and process improvements to future projects as well as the possibility of gaining a larger risk management perspective that allows you to apply these principles to your organization as a whole and better meet your overall core business objectives.

### Conclusions

In conclusion, effective project risk management can provide a key framework to allow Savvy Owners to be more

successful in their capital projects. As you go to implement this approach, keep in mind the following considerations:

- **Early efforts are critical.** Many of your key decisions early in the project regarding the team, your contracting strategy and contracts, and your scope have ramifications throughout the implementation of the project and on to the operation of your facility. Adopting a project risk management framework early is the equivalent of playing good offense – or at least designing a good offense to be implemented over the course of the project.
- Actually USE the Risk Management process you’ve designed throughout the project lifecycle. Use it to manage the project. Do not fall prey to the “dusty binder” syndrome.
- Ongoing risk monitoring is critical to make sure that your plans are working well as well as to enable you to identify emerging risks that previously went unrecognized. It is the equivalent of playing good defense.
- Integrate your project risk management efforts into your larger organizational processes and ultimately, your core business may reap benefits from applying these principles.

Often, Risk Management processes focus on process risk. What goes wrong if a certain financial or project control does not exist or is flawed. Successful project risk management incorporates but goes beyond this narrow view of risk to include all of the factors that might make your project fail.

*Jane started a project.*

*Jane hired Dick as her Architect and Spot Construction as her Contractor and pretty much let them run the project.*

*The project finished 6 months late and 23% over budget. Jane decided to leave two floors unfinished because she had no more money. And her company is currently in litigation with Spot Construction. Dick might have to testify for the litigation but was fully paid and is off designing his next project.*

*Jane did not understand the pieces of the project puzzle. Jane did not understand how to manage her project risk.*

*Jane was not a Savvy Owner. Do not be like Jane.*

### About the Author:



Mr. Steele is an experienced engineer and consultant based out of the Philadelphia area with twenty-eight years of experience in engineering, construction, and management across a range of industries including power and utilities, public sector, infrastructure, life sciences, and manufacturing. He has worked closely with senior executives to evaluate project status and risk, assess contract and process compliance, develop recovery plans, negotiate contracts, and create effective project management processes and organizations. Mr. Steele also has extensive litigation experience related to the analysis and preparation of or defense against construction claims related to schedule delays, cost overruns, productivity losses, and design errors and omissions for both public and private sector projects. Mr. Steele is a graduate of

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Quintain Project Solutions LLC is dedicated to helping clients prevent or resolve difficult project problems. Too many undertake projects that come back to haunt them. We can help you to hit your project target, without getting hit by your project.

Our services include:

1. Risk Management
2. Strategic Project Management
3. Process Improvement
4. Project Controls Implementation
5. Cost Management and Assessment
6. Contract Risk and Compliance
7. Litigation Support and Expert Testimony

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