

Thirteen ways to mismanage development project risk: How to avoid those erroneous routes

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Managing project risk is critical to NPD success. But it isn't easy. Many approaches which sound like they will reduce risk actually either increase it or make it harder to achieve success, according to author Preston Smith. In this article, the author tells NPD professionals how to avoid these common errors and misconceptions.

Product development has improved greatly in most organizations over the past decade. Along with developing a more formal process, managers have adopted techniques like cross-functional teams and voice-of-the-customer techniques.

One area, however, has not improved much: the management of risks—or “surprises”—that occur in any project, especially ones involving product innovation.

This is true, even though most organizations today require teams to deliver a list of project risks in as a part of their NPD process. Such formalization of a risk list appears to represent progress, but it may make the situation worse than before. Why? Because, usually, nothing more is done with these risks. And when they start to materialize later on, the team is now embarrassed that they listed the risks but after that neglected them.

I could provide a methodology to manage project risk more proactively, but that might turn into a book [Footnote #1]. So, instead I will take a short cut—listing 13 ways to mismanage product development risk—and what to do instead. From this discussion, what you should do to improve your risk management will become clearer.

1—Let the engineers manage risk In a typical product development project, perhaps three fourths of the labor comes from engineers or other technical professionals, such as chemists. Thus, it would seem logical to turn risk management over to your engineers. Engineers already have means of managing technical risk, called failure mode and effect analysis (FMEA) [Footnote #2]. Unfortunately, about 90 percent of project risks are non-technical, so if you assign risk management to your technical staff, you will still be surprised

about 90 percent of the time. *Instead, make sure risk management is cross-functional.*

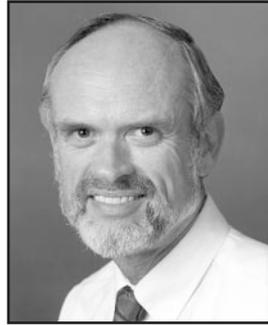
2—Root out all risk Risk seems bad, so shouldn't our objective be to eliminate it? Unfortunately, risk is intrinsically tied to innovation. If you eliminate all risk from a project, you will not have a new product, just a me-too one. Our job is not to eliminate risk but to understand each one and sway it in our favor, gaining the greatest benefit from the risks we assume. *Instead, gladly take on beneficial risks.*

3—Document risks early in the program This is fine, as far as it goes. The problem is that most teams are much more interested in identifying risks than they are in

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the methodical process of understanding them, planning ways of dealing with them, and following through with those plans. Once they have identified their risks, they choose or are directed to get on with the “real” work of developing the product. As mentioned in the introduction, many product development processes encourage this by tacitly assuming that busy people will manage risks once they have been identified. *Instead, explicitly take action on identified risks.*

4—Presume that risk management is free Effective risk management takes a substantial amount of effort. Done well, this effort is repaid generously. But if you assume that you can analyze and prioritize your risks without effort, that you can formulate effective action plans instantaneously, or that you can execute



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these plans without assigned resources, then you are living in a world of fiction. *Instead, balance the benefits expected against the costs anticipated, but do take the costs seriously.*

5—Manage the risks that seem worst Undeniably, identifying and assessing project risks is a subjective process, but you can do a great deal to base your risks on facts that exist in your project environment. If you are diligent in collecting these facts, you will be able to reach agreement as a team as to how serious a risk is, and your facts will lead you

toward effective action plans too. Without insisting on facts to support a risk, the process will bog down quickly in one person's opinion versus another's. *Instead, keep asking, “What facts lead you to believe that this risk will occur?” If there are no facts, dismiss this risk.*

6—Manage all project risks Many risks are truly unknowable, some are simply too expensive to resolve, and, of the remainder, you probably lack the resources needed to deal with all of them effectively. You must *choose* which ones you will manage actively. Effective risk management is not a blissful existence of “no surprises.” *Instead, plan only to focus your effort on your most serious risks.*

7—Let management second-guess risks Everyone has personal experience

with risk, and this can work against us. Each individual has an opinion. If this does not wound your risk management effort within the development team, it can kill it when untrained managers start debating the project's risks at a project review. *Instead, train your managers with an "executive" version of the risk management training that the team receives.*

8—Don't spend money on a risk until it happens Many managers are reluctant to spend money on potential problems, which is exactly what risks are. They have plenty of actual problems. (Many of these actual problems exist because they were not addressed as potential problems.) If you are unwilling to invest in potential problems, don't waste your time dreaming about project risk management. *Instead, invest proactively in problems that might happen.*

9—Manage the consequences of a risk Many teams attempt to deal with a risk's consequences, but of the many types of risk resolution actions available to us, the most powerful ones attack not the risk itself but the facts that cause you to believe in the risk. *Instead, just as a physician goes after the causes, not the symptoms, effective project risk managers aim to change the facts that support a risk.*

10—Make risk subservient to budget and schedule If you attend a team or review meeting in an organization that is serious about project risk management, you will hear more about risks than about schedule or budget items. Of course, in most organizations, it is the reverse: all

concerns focus on schedule and budget, and risk is hardly mentioned. This is a reactive style of management. *Instead, effective risk management is proactive; it recognizes that today's risks become tomorrow's budget and schedule problems.*

11—Employ sophisticated software Effective risk management can be done with remarkably simple tools: pencil, paper, a whiteboard, some sticky notes, and a spreadsheet program to keep track of it all. There is plenty of software available to distract the unwary. Programs such as @RISK, Pertmaster, and Risk+,

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which are Monte Carlo simulation tools [Footnote #3], will show you a risk's outcome in impressive detail. But it will not list the facts causing the risk to occur; it will not help you to create effective action plans, nor will it monitor those plans. These are the crucial activities of project risk management. *Instead, consider software as a special case for a very few particularly complex risks—especially if you have already identified interactions that you must understand better.*

12—Reward the organization's firefighters Proactive risk management is the antithesis of the behavior often called firefighting. Firefighting is reactive. It waits until a situation is almost hopeless

and then attempts a miraculous rescue. Some managers thrive on fire-fighting, because it is exciting, and because they are rewarded for this reactive behavior [Footnote #4]. *Instead, recognize firefighting for what it is: poor management.*

13—Avoid thinking about negative consequences Clearly, risk management has a negative tone: we are looking for things that could go wrong. Some managers discourage negative thinking. Some are afraid that discouragement would set in if each team truly understood what might befall it. Others encourage a competitive environment in which each team must fight for resources, and to do this, they must “look good.” In such environments in which constructive negativism is discouraged, you cannot have proactive risk management. *Instead, encourage a mindset of being in control of what might harm you.*

Endnotes

1. Smith, Preston G. and Merritt, Guy M. *Proactive Risk Management: Controlling Uncertainty in Product Development*, New York: Productivity Press, 2002.
2. McDermott, Robin E., Mikulak, Raymond J. and Beauregard, Michael R. *The Basics of FMEA*. Portland, Oregon: Productivity, Inc. 1996.
3. Grey, Stephen. *Practical Risk Assessment for Project Management*. Chichester, UK: John Wiley & Sons, 1995.
4. Bohn, Roger. Stop fighting fires. *Harvard Business Review* 78(4):82–91 (July–August 2000). 📌