DECISION LEADER REVIEW

A monthly resource to help you achieve better decision outcomes

June 2010

What is the Decision Leader Review?

This monthly publication brings you current research and information in the area of business decision making. You'll find new concepts and ideas you can put to use immediately to improve the quality and speed of your strategic and tactical decision making activities.

Word count: 859 - Time to Read: 3 min.

Humans are Increasingly Unable to Gauge Risk in a Technically Complex World

One of the most challenging tasks for any leader is to predict the future, and identify potentially catastrophic events that may result in project failure. What makes this even more difficult is the fact that, more and more, projects have huge technical complexity.

In his most recent Op-Ed article (May 27, 2010), written for the New York Times, columnist David Brooks writes about risk assessment:

> *"In the weeks since the Deepwater Horizon explosion, the political debate has fallen into predictably partisan and often puerile categories. Conservatives say this is Barack Obama's Katrina. Liberals say the spill is proof the government should have more control over industry.*
>
> *But the real issue has to do with risk assessment. It has to do with the bloody crossroads where complex technical systems meet human psychology."*

His words tell us how we've developed into a society that depends on an expanding array of intricate, complex, high-tech systems. These systems (hardware and software) are the core of all we do: financial markets, energy, space exploration, air travel, defense programs and modern production plants.

> *"These systems, which allow us to live as well as we do, are too complex for any single person to understand. Yet every day, individuals are asked to monitor the health of these networks, weigh the risks of a system failure and take measures to reduce those risks. If there is one thing we've learned, it is that humans are not great at measuring and responding to risk when placed in situations too complicated to understand."*

Why is this?

The following is our summary of his 6 causes. After each you'll find a question written by the Decision Leader Review editors. Use these questions to lead discussions about how vulnerable you and your projects are to these human pitfalls.

1. People have difficulty imagining how small failings can combine to create a catastrophic disaster.

"At Three Mile Island nuclear facility, it was the interplay between seemingly minor events that led to an unanticipated systemic crash."

Question: When doing your risk mitigation activities, do you focus only on the big risks and ignore the combination of "small failings" that might lead to disaster? If so, how might you include risk mitigation thinking for those combinations?

2. People have a tendency to get acclimated to risk.

"As physicist Richard Feynman wrote in a report on the Challenger disaster, as years went by, NASA officials got used to living with small failures. If faulty O rings didn't produce a catastrophe last time, they probably won't this time. Feynman compared this to playing Russian roulette."

Question: What "small failures", within your project, are you living with? Which ones are you ignoring (like the O rings) that could lead to project failure?

3. People have a tendency to place elaborate faith in back-up systems and safety devices.

"More pedestrians die in crosswalks than when jaywalking. That's because they have a false sense of security in crosswalks and are less likely to look both ways.

On the Deepwater Horizon oil rig, a Transocean official apparently tried to close off a safety debate by reminding everybody the blowout preventer would save them if something went wrong. The illusion of the safety system encouraged the crew to behave in more reckless ways."

Question: What "back-up systems and safety devices" are providing you with a false sense of security? If any of those fail, which ones will lead to project failure?

4. People have a tendency to match complicated technical systems with complicated governing structures.

"The command structure on the Deepwater Horizon seems to have been completely muddled, with officials from BP, Transocean and Halliburton tangled in confusing lines of authority."

Question: If you are involved in a project with complicated technical systems, is your "governing structure" also complicated? Is your sponsoring team split between leaders of silo'd functions, who are not in alignment, like BP, Transocean and Halliburton?

5. People tend to spread good news and hide bad news.
Everybody wants to be part of a project that comes in under budget and nobody wants to be responsible for the reverse."

Question: What "bad news" are you not telling your project leader or sponsoring team? What might they do differently if they had the benefit of knowing what you know?

6. People in the same field begin to think alike, whether in oversight roles or not.
"In the weeks and hours leading up to the Deepwater Horizon disaster, engineers made a series of decisions without any clear sense of the risks and in an environment that seems to have encouraged overconfidence."

Question: Where might your project leader, team members and/or people in "oversight roles" be vulnerable to "thinking alike"? Which risks are you overconfident about, due to "groupthink"?

The Idea in Practice
If you are an executive sponsor, team leader, or team member, print this DLR and lead your team in a discussion of each of the 6 pitfalls above. Your project may depend on it!

Quote of the Month

"Human beings have a seemingly fundamental tendency to compensate for lower risks in one area by taking greater risks in another"

- Malcolm Gladwell, author

Read David Brooks NY Times article:
http://www.nytimes.com/2010/05/28/opinion/28brooks.html
