Risk / Opportunity Balance By Linda Westfall<br>Software Excellence Academy

## Future Thinking

The future seems to be coming at us at an ever-increasing rate. As effective managers and practitioners, we must think proactively about all of the possibilities that the future may bring, but those possibilities have uncertain outcomes. We call those possibilities opportunities if we believe they will have positive outcomes. For example, we have the opportunity to complete a project and make a substantial profit, or we have an opportunity to introduce a new product into the marketplace first and capture the lion's share of that market. We call those possibilities risks if we believe they will have negative outcomes. For example, we have the risk of not completing that same project and losing our investment, or we may have the risk of our competition beating us to the marketplace with a new product and losing market share. To quote Tom DeMarco, "Moving aggressively after opportunity means running toward rather than away from risk."


## Risk/Opportunity Balance

As illustrated in the figure above, sound risk management practices balance risk and opportunity. We need to identify and manage both the risks and their associated opportunities. Not paying attention to the opportunities and managing the balance between those opportunities and the risks can lead to the loss of significant opportunities. It may also lead to projects and products where the risks outweigh the opportunities, and there is little to no chance of success.

## Walking the Board

Let's assume that I place a 10 foot long board on the ground to demonstrate this point. It is 2 inches off the floor and 4 inches wide. If you can walk across it toe-to-heel without falling off, I will give you $\$ 10$. Would you do it?

What is the risk in this scenario? The potential problem is that you might fall off the board.
Let's analyze the risk. What's the probability that you fall off the board? For most of you, it may be pretty low. However, I have had both knees replaced, and I still don't have good side-to-side balance, so the probability is higher for me. What's the loss if you do fall off? Don't say $\$ 10$ because you are not losing the $\$ 10$ - you don't have it yet. The loss might be that if you are the only one who steps off the board, others might point and laugh, causing you to be embarrassed. Or you could actually twist and sprain an ankle, or even fall and crack open your head - but what is the probability of that happening?


Now let's analyze the opportunity -- the $\$ 10$ reward for success. What is $\$ 10$ worth to you? What's the probability that you receive this reward? If we were in a room together running this experiment, how many of you trust that I would give you the $\$ 10$ ? When we talk about this in my classes, most students are willing to take on this challenge for the possibility of a $\$ 10$ reward.

## Changing the Challenge

Let's take the same board and place it between the roofs of two seven-story buildings -- assume that the board is reinforced and locked down so it won't break, twist or fall.

Is anyone still willing to do it for $\$ 10$ ? Why not? What did I change? Of course, the answer to that question is that I changed the risk side of the balance. So let's analyze again.


Did I change the probability that you fall off? Maybe -- outside, between two fivestory buildings, there may be a breeze, or you may be nervous and shaky, which might increase the probability that you fall. But mostly what I changed was the loss if you do fall - from seven stories up, if the risk turns into a problem and you do fall - you will go splat.

So, to bring this challenge back into balance, I have to increase the
opportunity side. How about imitating the Fear Factor TV show - I will give you $\$ 50,000$ if you are successful. Any takers?

At this point, someone in my class usually starts asking questions about harnesses or airbags. AH - RISK MITIGATION! When you really want the reward (and which of us couldn't use $\$ 50,000$ ), but the risk looms too large for us to be willing to take it on, we want to figure out ways to reduce that risk.

We can do that by reducing the probability that the risk turns into a problem (for example, we can practice down on the ground for a while until we get good at walking the board, or we can get out of our five-inch stiletto heels and put on good tennis shoes). We can also reduce the loss if the risk does turn into a problem by having harnesses or airbags. We can also transfer part of the risk to someone else. For example, maybe we could hire a world-class gymnast to walk the board for us and split the reward with them.

## Lesson Learned

Risk management is all about identifying and analyzing our risks to decide:

- Which risks are small enough, and the associated opportunity large enough to accept the risk?
- Which risks are so significant that the associated opportunity is just not worth it, so we avoid the risk?
- If we really want the opportunity, but the risk is too large to accept, we must find a way to mitigate that risk by reducing the probability it turns into a problem or the impact if it does.

