Risk Management 101

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In considering what's important to an entrepreneur's success, many topics come to mind. We could discuss "treating your customer as your friend," and the fact that while you don't always agree with your friend, you must treat them as though you want a long-term relationship (or you'll soon be without any friends). Or we could look at why a startup is like a marathon and not a sprint-how to prepare and have endurance, since things rarely go smoothly. But the topic I'd like to address is risk, why it's important and how to deal with it.

First of all, why take risks? There are plenty of business opportunities with low risk, but few of these ventures generate much value. The real key to business opportunity in competitive markets is differentiation. If you don't differentiate, competition will force pricing to a level where there is little or no profit. This concept is imbedded in the name of my first startup, Novellus. Novellus is the Latin root of the word "novel," as in "do something different!" Novellus did, and not only had the industry's leading profit margins, but achieved a market cap of greater than $2 billion.

So, differentiation is crucial, but its unfortunate side effect is risk. The more you differentiate, the more unknowns are encountered, and the more risk is assumed. Therefore a major determinant of the success of a startup is how this risk is handled. I've found it useful to break down the risk into three categories: financial, market, and technical risk. Let's review each one separately.

Financial risk is the most important, because if you run out of money the game is over. As is said in entrepreneurial circles: "Remember the Golden Rule: He who has the gold…rules." There are two basic guidelines: get enough money and don't waste it. On getting money, always develop three independent channels for funding-you may have 20 to 50 prospects in each channel, but make sure you have three channels in all. Channels to consider are family and friends, venture capitalists, corporate partners, international sources, government sources, and traditional lenders (i.e., banks). Select at least three and develop 10 to 30 prospects in each. This approach has been critical to the success of every startup I've been involved with.

Next, don't waste this hard-won capital. Whatever money you have raised, plan on spending only half of it (or raise twice as much as you think you'll need). Treat it like gold. Don't waste it on frivolous things like nice office furniture or a company car. Spend it on-guess what?-reducing risk, as in your market and technical risks.

Of the three risk factors, market risk is the one you have the least control over. For that reason, I dislike it the most and work hard to avoid it. You can minimize market risk by appropriate market selection and product design, segmenting and analyzing the market before you decide where to focus. For example, in software it makes no sense to take on Microsoft in the operating system arena, but obviously there have been many opportunities in web browsers, social networking, and several other smaller segments of the software business. Do a thorough analysis of the segments and the competition, and pick a market where you can effectively compete. Secondly, don't try to create a market. It's very expensive to generate demand as opposed to satisfying an existing demand. I've been very successful going after "boring" older markets by better satisfying the existing customers.

Another method for reducing market risk is to specify the right product or service. Don't fail because you succeed. By this I mean don't set your sights so low that you achieve your technical goals but fail in the market. At Novellus and my second startup, Mattson Technology, we set our technical specification at two times that of the competition. Whatever the competition could do, we'd do it twice as well-not 20% better, not 50% better, but 100% better. Many companies have failed because they met their 20% improvement goal, and no one bought their product. Essentially, minimize market risk by making a product so good that the market will love it.

Of course, this puts all of the pressure on your technical team, and increases the technical risk. Of the three risks, I prefer technical, because this risk is under your control whereas market risk is not. I've yet to challenge a technical team to achieve a goal where they haven't risen to the challenge. Be innovative, embed your differentiation in the technology of what you do or how you do it, and you can be a successful entrepreneur.

So how do you effectively manage technical risk? First, always make the highest-risk portion of the program your top priority. Identify the key execution risks and work on them. Keep headcount and other expenses low until the key technical risks are resolved, and only increase expenditures when the major risks have been overcome. Secondly, hire experienced people who are experts in their fields, and pay generously for the lessons they have learned. You can't afford too many mistakes, so invest in the best people. Finally, keep open to solutions outside of your organization, because you never know where a breakthrough technology will come from.

So wrapping up, taking risks is necessary…In fact, it's at the center of differentiation and, therefore, creating value. Perhaps the most important aspect of successful entrepreneurship is the management and minimization of these risks. We've looked at the categories of financial, market and technical risk, and how to minimize them. Although not comprehensive, these ideas have been successfully applied in Silicon Valley and resulted in two public companies with a combined market value of over $3 billion.

Brad Mattson is a 2008 recipient of the CIE Founders Award, and a well-known entrepreneur and executive in the semiconductor equipment industry. Currently retired from active management, he was most recently chairman of Zoom (2007) and chairman of the board of Tegal Corporation (2004-2006). Previously, he was founder, CEO and chairman of both Mattson Technology and Novellus, and held various management, marketing and technical positions at Applied Materials and LFE Corporation.