

## Corona Optical Systems

Last year I went through the process of selling my venture backed company, Corona Optical Systems. It was a difficult decision because we had created a lot of tangible value. The lead product was called the *OptoCube*. This product is an extremely dense fiber optic module that can transmit forty gigabits of data per second over optical fiber for distances up to 300m. The package is the size of a dime (13mm x 13mm). Corona had good customer traction, with a great tier one design win and a number of smaller loyal customers. The development team was led by Randy Wickman, our CTO and Corona's other founder. His technical team had effectively patented most of the key concepts within the product. As I write this, there are about twenty issued patents with others pending review at the PTO. After four years of hard work, we had reached a point where a final round of investment might have enabled us to reach cash-flow positive. After that we would organically maintain growth through utilization of the company's free cash flow. On the surface, it was a good place to be. The goal of most entrepreneurs is to receive venture funding, release a successful product and reach cash-flow positive. We had achieved much and could see the goal posts at the end of the field.

But, life was complicated. Like many entrepreneurs, we started the company at the top of the technology bubble in early 2000. Our initial PowerPoint presentations resulted in higher valuations and more offers for money than the company would see at any other point in our existence. Each funding round was more painful. Key terms like liquidity preferences, drag-along rights, and a wide range of control provisions started to dominate our conversations. Corona had a great group of investors. They were among the best. Our Venture Capitalists provided continued funding to Corona over our entire life, even as the market melted down. This was justified based on our numerous achievements and customer traction. By the end of the process, though, they showed an obvious sense of exhaustion every time they mentioned their fiduciary responsibilities to their limited partners and the managing directors of their firms. It became clear

that our segment wasn't producing good returns to the private equity industry, and additional investment was becoming increasingly unlikely. Small changes in our customer base or any minor disruptions in our plan were magnified and generated anxiety on both sides of the board room table. We often discussed actions such as drastically scaling back the organization to a small core that would maintain our current customers, and allow us to cut-back expenses to reach a point of profitability. These discussions were somewhat removed from the realities of our customers, who demanded constant attention and support. After the technology meltdown, most of our customers were also attempting to reduce their reliance on smaller "niche" firms and shift sourcing to larger companies with broader product lines. Without new development, we would have been quickly sidelined.

Over a four year period, Corona Optical Systems closed five rounds of funding. The achievements listed in our resumes are substantial. Founding a startup is valuable experience that I would recommend. In our case, the Corona parking lot wasn't full of new Lamborghinis the week after our sale to EMCORE, but we each walked away with many new skills. From a process point of view, it is often difficult to give clear advice to other entrepreneurs. The process is extremely dynamic. It is driven by the market, development success, the team and the investors. Each of these groups makes constant demands that require immediate results. A system of triage is usually implemented to allow management to apply limited resources to a constantly changing landscape. Individuals who are not flexible, or are overly risk averse, might not want to dive into this world. For everyone else, the lake is choppy but the water is wonderful.

The first couple weeks of a start-up are the most difficult. Just getting a company off the ground is remarkably difficult. During this brief discussion, I won't address that. It is a huge omission, but I have limited time and would like to focus on a valuation concept that I'd recommend entrepreneurs apply to their sweat equity investment and their own value.

When partnering with Venture Capitalists, you are engaging a sophisticated group that values everything. They use a wide variety of metrics to

estimate the value of their portfolio, the risk, potential liquidity events, broader industry metrics etc. Most entrepreneurs are completely unaware of this process, often to their detriment.

Let me briefly discuss the source of funds and the follow-on funding process. A start-up raises money from Angel Investors and Venture Capital Firms (i.e. private equity sources). This money is applied towards product development, sales and infrastructure. Some of the funds are also applied towards salaries. The Venture Funds go through exactly the same process. They raise funds from Limited Partners (outside investors, such as university endowments and pension funds), and invest that money in start-ups. Some of it is also used to pay their salaries. The same source of funds pay the salaries of the Venture Capitalists and the Entrepreneurs. In an ideal world, a great liquidity event should equally benefit both parties (Venture Capitalists and the Entrepreneurs). It is important for an Entrepreneur to mentally place themselves on the same level as the Venture Capitalists. Emotionally, you should view board meetings as a discussion among equals. From a process point of view, you should make an effort to understand their daily jobs, how their performance is evaluated and what sort of metrics they track.

During the follow-on funding process (i.e. second or third investment round), the Venture Capitalists are calculating the potential return of each investment relative to other start-ups inside and outside their portfolio. They can make a follow-on investment in your firm, or someplace else that might offer a better return. Many Venture Funds will rank their current investments and have a "cut-line" drawn through the list. Start-ups above the cut-line will receive follow-on investment. Firms below the line need to look elsewhere for funds. They may also force companies below the cut-line to sell themselves or merge. I would strongly recommend continuously talking openly with your Venture partners about their process. If your firm is below the cut-line, it is better to know about it early and plan accordingly. In business, sudden surprises don't usually generate the best results.

On a personal basis, an Entrepreneur should also value themselves. You are investing your personal energy in this company. At regular intervals it is entirely appropriate for an entrepreneur to look at the invested sweat equity, salary and future potential return relative to other opportunities. Spouse, kids, mortgages, college funds and retirement accounts can all be treated as Limited Partners in your venture. You

should never forget your fiduciary obligations to them. In the dynamic world of start-ups, locate a good mentor to provide a reality check. Brutally honest third party valuations are good. Your personal reputation and the manner with which you transition into and out of companies is also important. This affects your future earnings potential and should also be used in your valuation models. Without a solid reference from each company, you'll be damaged goods.

When the terms of a follow-on investment are negotiated at each funding round, you should take the time to fill out a spreadsheet and look at how much money you will make if the company is sold. Look at similar start-ups and realistic exit valuations when you fill in the numbers. Don't overlook the Venture Capitalist's liquidation preferences, because these can be a killer. Factor your salary into the analysis and the cost of health insurance, commute times and other intangibles. I would not recommend a single ROI number. You should acknowledge and weight each element, then compare them to other potential opportunities. Based upon that, you can decide if the "new" post-investment start-up offers your limited partners a reasonable return. I'll admit the process sounds odd, but each investor providing cash to your firm is doing exactly the same thing. Your sweat equity is just as valuable.

In the case of Corona, my personal analysis always resulted in my staying at the company. From a career perspective, I felt that a solid track record at Corona would positively affect my future career and earnings potential. The company also provided a competitive salary, reasonable benefits and a steady stream of new learning experiences. Had we gone through one final round of investment, the terms might have changed my analysis.... not sure. The decision to sell Corona was agreed upon by all parties and there was never a need for the final investment round. If I start another company in the future, I will certainly focus on reaching cash-flow positive at a much earlier stage and attempt to limit reliance on extended rounds of outside investment. This provides a much more stable environment, which reduces risk and usually makes everyone happier.

## About the author



Bryan R. Gregory was Vice President of Marketing for EMCORE Corporation (NASDAQ: EMKR) when he wrote this article, and is now President of BEA, Inc. At EMCORE, he oversaw business development, product management and new product strategy. Prior to EMCORE, Mr. Gregory co-founded Corona Optical Systems, which was sold to EMCORE in 2004. Previous positions include Director of Business Development at Molex, Product Marketing Manager at Mitsubishi Electric (Semiconductor Division), and Product Marketing at Hitachi Semiconductor.

Mr. Gregory holds an MBA in International Business, and a BS in Electrical Engineering. He lives with his wife and two daughters in Glen Ellyn, IL (a suburb of Chicago).