This is a Reprint from the Monthly Column in ROSION RUSINESS INTERNAL



# **Thinking About Valuation**

## STARTING UP: Practical Advice for Entrepreneurs

By: Joe Hadzima



igh@alum.mit.edu

Joseph G. Hadzima, Jr. Senior Lecturer, MIT Sloan School of Management Chair, MIT Enterprise Forum, Inc. Managing Director, Main Street Partners LLC

## Thinking About Valuation

The ultimate question for both Entrepreneur and Investor is "what is the venture is worth?" In the past week I have had discussions with three of my clients about this question. One is a five-yearold 10 person company with hardware and software products, funded to the tune of \$1,500,000 by family and friends, and which has an opportunity to introduce an advanced digital signal processing (DSP) product. The second is a 10 year old networking related company whose sales have started to increase dramatically. Two years ago it couldn't get the time of day from investors but today it has a term sheet from a major vc (venture capital) firm and equity investment offers from three major networking companies. The third is a one year old interactive online marketing startup with two very experienced people who are in discussions with a major record company.

There are some major differences in the valuations which these companies may receive but the basic question the Investor is asking in each case is "how much can I earn?" on my money. Remember that the Investor can earn a nice safe return by investing in U.S. Treasury bills. What return will it take to get the Investor to tie up money in an illiquid private company?

Ultimately valuation is a matter of negotiation. Successful negotiation requires homework to support a convincing case. Financial projections should be based on hard facts if possible and should be internally consistent and integrated with the business plan strategy. It is hard to close a deal with an Investor who finds obvious "holes" in your plan and numbers.

#### **Valuation Approaches**

So what is the valuation? There are several techniques which might be used to "bound" or reality check the valuation. The most basic is the discounted cash flow (DCF) method. What are the projected revenue/profit numbers in 5 years when the investor wants to get his money out? What are the price/earnings multiples for comparable companies today? Multiply these numbers to get an assumed value in year 5 and then discount that number back today. The discount rate is a judgment call based on a number of variables including risk and the current market for similar investments. Venture capitalists often talk of a 30 to 40% annual compounded return target. The result of the analysis is what the value of the company is today. Obviously, the analysis involves a number of judgment calls but if you do a sensitivity analysis by varying the assumptions you would be surprised to see the number of times when you can't get anywhere near the valuation an entrepreneur is asking. For my DSP client a challenge is to get the Investors to focus not on past revenues but rather on the DCF of the new product line.

Sometimes, but rarely, the DCF analysis is enough. Other valuation perspectives are often used. For example, if an acquisition is a realistic exit strategy then look at what prices have been paid recently for comparable companies. This works for my networking client because in the past year there was a \$35 million acquisition of a similar company with lesser technology. If there have not been comparable company acquisitions in your industry because the technology is too new or

whatever, then look to acquisitions which have been made in other industries for reasons which are similar to why you think your company will be an attractive candidate.

What if your asset is an "enabling technology" for an industry that is only starting to develop? This is possibly the case with my interactive company where a DCF analysis on what the Founders realistically project in 5 years yields a fairly low value. The Founders have projected relatively low 5-year numbers because they do not expect to see massive interactive on-line sales within 5 years because a number of pieces have to come together on the information superhighway. In this case a mergers and acquisitions investment banker suggested looking at valuation based on multiples of projected market share. He pointed to the software operating system market where percentage market share valuations correlate with DCF valuation and actual market values of companies such as Microsoft.

### **Pre-Money and Post-Money**

It is critical to understand whether you are talking about "pre-money" or "post money" valuation. I have some technology and an idea and I attract an Investor. We agree on three points: we will incorporate the venture, the value of the venture is \$1 million and the Investor will put in \$300,000. The ownership percentages will depend on whether we mean a \$1 million pre-money or post-money valuation:

	\$1m Pre Money Valuation		\$1m POST Money Valuation	
	Value	%	Value	%
Entrepreneur	\$1,000,000	77%	\$700,000	70%
Investor	\$300,000	23%	\$300,000	30%
Total	\$1,300,000	100%	\$1,000,000	100%

### **Fully Diluted**

Even if we agree that we are talking about pre-money valuation, there is still the question about what that value applies to. Investors usually mean a fully diluted valuation - i.e., assuming that all outstanding options and warrants are fully exercised and all convertible securities are converted. If the management team is not fully fleshed out, the Investors may mean fully diluted and taking into account full issuance of stock to a fully formed team. These points are often a subject of negotiation with questions such as: What happens if the option pool is not fully used up, do the Founders get the shares or are they in effect shared with the Investors? What if one Founder leaves and forfeits shares under vesting arrangements, do the other Founders get the shares?

Valuation is not a science but it is not totally an art either. Do your homework and build a realistic, defensible set of projections. Most importantly, you must "own the numbers" by having a well thought out consistent, believable story about why your plan will succeed- that can really help you get your valuation.

Special thanks to Ken Schiciano of TA Associates and Stu Auerbach and Charlie Yie of Ampersand Ventures for their thoughts on this subject.

DISCLAIMER: This column is designed to give the reader an overview of a topic and is not intended to constitute legal advice as to any particular fact situation. In addition, laws and their interpretations change over time and the contents of this column may not reflect these changes. The reader is advised to consult competent legal counsel as to his or her particular situation.