



# Patents for high-tech start-ups

Although a patent portfolio can potentially be of great benefit to a high-tech start-up, the quality of what the portfolio contains will be decisive

As a venture capitalist, you should always think about what the portfolio companies can do in the patent field to build a sound and strong company. Is it worth spending money on patents? By which I mean, does such expenditure represent strategic importance or is it more of a marketing tool designed for the investment market? Put simply, do patents have any influence on turnover?

One way of answering these questions is by trial and error: gather experience of what works and what does not. However, if you take this approach, how many years, deals and millions do you need to find out with sufficient clarity? Alternatively, you could ask your patent attorney. He may not have a very convincing argument but he will be in favour of patents. Or, then again, you could ask experienced managers. Probably, they won't be of much help either, as they will tell different stories based on what they have seen as individuals.

So, if none of these is satisfactory, what other options are open to the thoughtful VC? Well, science is one, especially empirical research in business administration. Enquiries directed in this area provide some very interesting answers as a number of studies have shown a significant influence of patents on the success of a company – success being measured in terms of turnover and/or profit. But there is a sting in the tail: it is not just a case of filing any old application. Instead, quality is of critical importance.

## Quality matters

When we say high quality patent application, what we basically mean is a patent application covering a good invention or a significant technical improvement, and not just an application that covers, say, an incremental improvement. If you make high quality patent applications, the chances are you will see significant increases in the turnover of your company two to three years later. The effect increases with the quality of the patents (Ernst, H (1999): Führen Patentanmeldungen zu einem nachfolgenden Anstieg des

Unternehmenserfolges? *Zeitschrift für betriebswirtschaftliche Forschung* 51, Vol 12, pages 1146-1168).

One reason for this increase could be the fact that good inventions covered by high quality patent applications are more often commercialised than others (Shane, S (2001): Technological Opportunities and New Firm Creation, *Management Science* 47(2), page 205-220).

No wonder, then, that patents with a broad scope of protection increase the value of a company [Lerner, J (1994): The importance of patent scope: an empirical analysis. *RAND Journal of Economics* Vol 25 (no 2), pages 319-333].

And if you group the individual patents into a portfolio, you will find that this high quality, high value asset increases the stock price and market capitalisation of a publicly traded company (Deng, Z/Lev, B/Narin, F (1999): Science & Technology as Predictors of Stock Performance. *Financial Analysts Journal* 55(5), pages 20-32).

## Strategy and management matter

The implementation of a patent strategy in the R&D department together with corresponding patent management processes almost doubles the profit margin of a company, in particular if it is combined with a systematic use of patent information (Omland, N: Patentmanagement und Unternehmenserfolg – eine empirische Analyse, *Mitteilungen der Deutschen Patentanwälte* (2005) 402).

One reason for this could be the fact that a well managed patent portfolio has a higher quality and thus increases the turnover of a company (see above). At the same time, systematic use of patent information can save R&D expenditures for things “not invented here” (Omland, N: Patentmanagement und Unternehmenserfolg – eine empirische Analyse, *Mitteilungen der Deutschen Patentanwälte* (2005) 402; Ernst, H (2003): Patent information for strategic technology management, *World Patent Information* 25, pages 233-242). When you examine the statistics and the evidence, it all looks quite plausible.

Having become familiar with a number of principles it is pretty simple to guess what comes next: companies with a patent strategy

which is actively pursued and systematic have a higher turnover growth rate (Ernst, H (1996): Patentinformationen für die strategische Planung von Forschung und Entwicklung, *Deutscher Universitäts-Verlag*. Wiesbaden).

On the other hand, quantity does not matter. It costs money to apply for and obtain a large number of patents – and most of those which are granted end up having no value at all. If anything, in fact, low quality patent applications have a negative influence on a company because they consume money without producing anything helpful for its success.

None of this should come as any great surprise: the literature is there to show industry that this is the case. What is surprising ‘though’ is that so few have taken the time to consult it.

## Consequences

VCs should ensure that those companies they are backing build a high quality patent portfolio: they should not file everything. All ideas should be collected but only the best ones should be selected for patent application. Always look for quality, ignore everything else. And patent management is also crucial: it should be systematic. Put brains into patent work. Develop a strategy and actively pursue it.

I will explain what patent management actually involves in the next issue of *IAM*. Now, we will have a little commercial break. Don't zap. The programme will resume shortly.

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