

Survey challenges popular beliefs about high-tech startup patents

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(PhysOrg.com) -- A new survey of high-technology entrepreneurs finds that patents provide less incentive to innovate than popularly believed, but offer tangible benefits by limiting competition, attracting financing, and increasing the chances of an acquisition or IPO.

The [survey](#), High [Technology Entrepreneurs](#) and the [Patent](#) System: Results of the 2008 Berkeley Patent Survey, was conducted by the University of California, Berkeley, School of Law's Berkeley Center for Law & Technology (BCLT). The research center surveyed chief executive and technology officers of more than 1,300 software, biotech, medical devices, and computer hardware startup firms founded within the past decade.

The survey results show that patents are more widespread among startups than has been previously reported, while the reasons for acquiring patents differ across industries. Patents are more common and more highly valued in biotechnology and medical device startups than in early-stage software and Internet firms.

“Biotech and medical device startup companies regard patents as key for attaining competitive advantage from their innovations,” said report co-author and Berkeley Law professor Pamela Samuelson. “Software entrepreneurs, on the other hand, find it’s much more critical to move fast in the marketplace and to use copyright and trademark protections. Patents take a back seat.”

Traditional theory says that patents provide an incentive to invent. But startups from all industries reported that patents provide relatively weak to moderate—rather than strong—incentives to create, develop, and commercialize technology. In fact, a large share of software startups avoid the [patent system](#) altogether. Among those companies that do seek patents, the primary reasons are to reduce competition and attract investment capital.

“This capital formation finding is noteworthy, because it’s an aspect of the patent system that has not been systematically established and explored in prior research,” said co-author and Berkeley Law professor Robert Merges.

The Berkeley Law survey is the first major study of the impact of patents on entrepreneurship in the United States. As a result, “the paper develops a deeper and much more nuanced picture of the role of patents for new ventures than exists anywhere else in the literature,” said UC Berkeley professor Richard Gilbert, former head of a patent licensing project at the Justice Department.

Across industries, the survey found the single most common deterrent to seeking patents was the cost of acquisition and enforcement. One policy implication, suggest the co-authors, is to make patents less expensive for early-stage firms.

The survey also found more licensing-in of patented technology than has been reported by other studies. “In most cases, these licenses bring in new technologies and know-how, though some are signed only to settle threatened lawsuits,” said Merges. “This suggests that patents may help in some way to establish technology markets, and that licensing is not primarily about avoiding litigation.”

Survey results include the following:

- patents are far more prevalent in biotech than in software startups;
- the average firm holds about five patents and applications (4.7), while the average venture-backed firm holds nearly four times that (18.7);
- venture-backed firms are much more patent-intensive, even in software, where 70 percent of venture-backed firms hold at least 1 patent and nearly 50 percent hold 10 or more patents and applications;
- on average, survey respondents said patents offer a "moderate" incentive to innovate in biotechnology, and only a "slight" incentive to innovate in software;
- patenting is rated first as a way to boost competitive advantage by biotechnology companies, and a close second for medical device startups (just behind first-mover advantage), but is rated last by software and Internet startups;
- startups report that patents provide valuable benefits, such as:
 - o limiting competition in product markets;
 - o helping to attract investment capital;
 - o building technology portfolios to enhance the prospects of an [IPO](#) or acquisition;
 - o enhancing firm reputation; and
 - o providing opportunities for licensing royalties.

Patent reform is the subject of a vigorous national debate. While opinions of large corporations and the patent bar have been clearly expressed, there's been little discussion of how the proposed changes will affect entrepreneurship.

“The high costs of getting and enforcing a patent make the system

unaffordable to many high-tech startups,” said Horacio Gutierrez of Microsoft Corporation. “Yet patents play a key role in attracting capital investments for early-stage firms, and consequently in their business viability at a key stage of development. The Berkeley Law survey illustrates the need to reform the patent system at all levels of government to make it truly accessible to high-tech entrepreneurs.”

[High Technology Entrepreneurs and the Patent System](#) will be published this summer in the Berkeley Technology Law Journal.

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