

Beyond the iPod: Should you invest in device startups?

by: Larry Kubal, Labrador Ventures – March, 2006

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It's official. A boom in consumer electronic devices is upon us. According to the Consumer Electronics Association, 1 billion consumer devices will be sold worldwide in 2007. Apple alone sold 14 million iPods during its most recent December quarter, with the company estimating it is selling 3 million songs each day through iTunes – this after having sold 8 million downloadable television shows since mid-October. The average number of consumer electronics products per household increased from 13.5 devices per home in 1995 to 17.4 devices by 2000 to an average of 25 devices per home today. That's roughly six consumer devices per person per home!

Revenue growth for the U.S. consumer electronics industry continues to expand, with \$125.9 billion in device sales for 2005, up from \$102.6 billion in 2004. And this year, revenue is expected to top \$135 billion. What exactly are consumers buying? Here's what analysts expect to ship this year: 27.7 million MP3 players (30% of them with video playback capability), 25 million digital cameras (more than 90% of them offering over 5 megapixels), and more than \$16 billion worth of wireless handsets (almost \$3 billion more than the 2005 total).

"The gadgets have grown up," says Irving Wladawsky-Berger, vice president of technical strategy and innovation at IBM. "They have not only gone digital and added more and more capabilities, but they are now based on computing technologies that just a few short years ago would have been found only in high-end PCs."

Coupled with cheap storage and widespread broadband connectivity, consumer devices have spawned an environment ripe for opportunity. At least in theory. It is an environment characterized by the confluence of exploding consumer adoption of a multitude of platforms in an increasingly robust and connected infrastructure.

Dance to the music?

This is music to a venture capitalist's ears, and VCs are dancing to the music – as evidenced by their recent appetite for investments in device manufacturers, chips and hard technologies embedded in the next generation of devices, and in software applications and data services that ride on top of the new boom in networked gadgets. Yet, are such investments – in any of these three categories – smart choices for VCs looking to capitalize on expanding markets, particularly if we're seeing consumers approaching saturation when it comes to their digital technology lifestyle? In some cases, where the obvious risk/reward means that investment dollars can soon turn into revenue dollars, the answer is yes. In other cases, where margins will be tight, distribution channels slim and IP difficult to protect or defend, the answer is clearly no. And often, the lines between the two are subtle and difficult to predict, particularly for early stage investors.

Dan Eilers, a managing partner with Vanguard Ventures, is selectively bullish on the space. "Our focus is not on the consumer per se, but instead on what we think of as consumerized technology products or services, what we call Personal Information Technology," he says.

The Personal Information Technology nexus can come in many shapes and sizes. First, there are the applications plays. Those, says Band of Angels founder and Managing Director Ian Sobieski, are the easiest to understand because the feedback loop between customer and revenue is the easiest to determine. The upside for application plays for early stage investors include: no lengthy sales cycle, efficient marketing often optimized by simple ad word purchases or purely viral growth, and a generally shortened time frame between investment and return on invested dollars. The downside is there's often little to no IP to protect, the solu-

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tions are often not objectively measurable, and the technology can usually be easily copied." This makes some of these investments a crashout," says Sobieski.

For better odds there's Sentinel Vision, a Labrador-backed company that makes an easy-to-install, inexpensive on-site security monitor that sends image, sound and text information directly over the telephone line to a company's data alert center. Sentinel also offers data services to its customers, as it continuously processes information from the device. Thus, it can send images, audio and text alerts to customers and their designated contacts' telephones, cellular phones, image-capable cellular phones, pagers, email addresses and to its professional monitoring center as a further, higher margin and easily scalable, part of its business model, one that's layered on top of the sale of the original device.

Smoke Signals

Next, there are the chips and embedded technology plays that are often easier to defend given the substantial opportunities for sustainable intellectual property. However, they also tend to require more capital to get through all nine innings of technology and business development. On the downside there was BOPS Inc., a Mountain View, Calif.-based company that licensed and integrated scalable, broadband digital signal processor (DSP) cores used in multimedia, mobile media, wireless and communications system-on-a-chip (SOC) products. BOPS burned through \$60 million but couldn't get over the final design win hump that customers were looking for in an overly crowded market. It was eventually acquired by Altera in 2003.

Portal Player, on the other hand, was able to hitch its wagon to the success of the iPod. The developer of chips for hard-drive based media players rode that gravy train all the way to a successful IPO in November 2004.

"The best path to success in this kind of space is to anticipate where a big company is going and solve a problem that's in a product development roadmap," Sobieski says. "It's a lot more trackable, doesn't take a lot of capital and you can execute on that." He cites the success of Bluesteel Networks, a developer of Internet security processors for e-commerce and virtual private networking (VPN) applications. It was acquired by Broadcom at a handsome profit after raising just \$20 million.

When looking at device manufacturing, determining whether a company has a decent chance for success can be far trickier. Device manufacturers need scale, distribution, speed to market and the ability to preserve their margins, and they need to avoid hefty competition from large established players.

Stepping Up

That's a lot to ask of most startups, though STEP Communications might be the exception. STEP appears to have many of the ingredients to make its Bluetooth-enabled mobile headset device a reality. The company jointly developed its Bluetooth solution alongside Flextronics, thus it was able to maintain a low price point while preserving comfortable margins. Moreover, with Flextronics as a distribution partner, STEP doesn't have to worry about building its own brand, so it can go to

investors with a working product. Says founder and CEO, Steve Puthuff: "If you're looking for the most bang for your buck, this is it."

What appears to be most important for VCs in understanding devices is not only determining where the various target markets are, but where they are heading and how they will evolve. This is more than just understanding that flat screen TVs will continue to decline in price and increase in quality. It's about understanding that Apple may soon make an iPod for kids, and if there are applications that can serve that new market where the device will have already created a critical mass of opportunity. It's about understanding that there will be new consoles and titles in the video game industry, but also that there will be a whole range of new phones optimized for mobile gaming and that will require new technologies for the next generation of wireless networks to make such mobile game-playing more secure and robust.

As Apple's stock showed recently, the boom in devices will not last forever. After a three-year rise, the company's stock peaked with a 900% gain, only to start falling back to earth on assumptions by the market that the success of the iPod – and even its surrounding applications – is not a blank check to riches. VCs must be careful that the same dynamic doesn't equally impact their investments and startup valuations. Devices still hold much promise, but the tradeoffs between risk and reward are razor thin, and only the most diligent and lucky early stage investors will be able to see into the future to find the best opportunities.

This is one in a series of monthly columns on seed and early stage investing that Labrador Ventures was selected to contribute to the *Venture Capital Journal*.

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