

Five ways to innovate

Strategies of technology companies



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Technology companies are under increasing pressure not only to come up with new innovations, but also new ways of innovating. What are some of the basic approaches to innovation and the relative tradeoffs?

There are five basic ways in which technology companies innovate now.

First, and most common, they have a development platform that drives the next generation of products. For example, Intel incrementally extends the speed and performance of its chips on a regular basis. This strategy works well in heavily standardized and consolidating industry segments, but when disruptive technology emerges or an industry is disaggregating, these platforms are straight jackets. Motorola is still reeling from these dynamics.

Second, they actively search for emergent technological enablers and integrate them into their core technology. Cellular phones are a good example. They are fraught with features that consumers don't use, don't want, and are not integrated into the basic value propositions for specific segments. Whereas these engineering driven feature enhancements have incremental value in maintaining parity with incumbent competitors, they can become potential obstacles to creating future uses and markets for the technologies because they neither fulfill nor create a real consumer need.

Third, some technology companies are taking a page from the service industry playbook and identifying a specific customer problem and pulling the invention through that opportunity space. For example, Fluke, a leading provider of engineering test equipment, finds customers who have needs that their product line can not fulfill. So, they send Phoenix Teams to these customer locations and develop specific solutions. These solutions are translated into new products.

Fourth, a new trend is for technology companies to use idea markets to help them focus on key technologies to develop with the aid of a diverse network of experts or potential customers. Idea market participants are given votes to cast on their preferences and opinions about complex issues such as the relative attractiveness of a new fashion. Idea markets are now being used to predict which technologies will be a hit with consumers. HP uses idea markets with its field sales organization to predict sales volumes of new products. These markets work by identifying the range of possibilities and their relative

value much like the process a banker goes through when pricing an option.

Finally, the big frontier for technology companies is to become part of the strategic outlook process which is largely driven by marketing. Most major technology firms now have forecasting functions and listening posts, but these are still largely underrepresented on the planning committee agenda. Instead, these discussions are most centered on control processes for technology: Operating budgets, internal stage-gate development systems, portfolio processes, and resource allocations. In other words, the very processes that are used to develop new technology become the heavy-handed methods by which innovation is smothered. Sony is a good example of how performance management systems often hinder innovation. Sony had over a dozen industry-creating technological breakthroughs between 1960 and 1980, but virtually none since it began instituting an aggressive array of innovation management systems. The current pharmaceuticals sector is a great example of how these processes often backfire.

Dell, although not a radical innovator, seems to meet this challenge by integrating its technology development roadmap into its marketing segments brand map. The way forward for them is a wide array of mini-ventures quickly testing the convergence of these roads and determining what doesn't work, and more importantly, what does. So, in the end, we find that the only real way to create innovation, which is entwined in the future and the unknown, is through a wide array of experiences and experiments. In other words, the new way to innovate is really the old way.