SAP Business Suite

THE ART AND SCIENCE OF OPEN INNOVATION

AN INTERVIEW WITH PROFESSOR HENRY W. CHESBROUGH

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Henry W. Chesbrough is the executive director of the Center for Open Innovation at the Haas School of Business at University of California, Berkeley. He is the author of *Open Business Models: How to Thrive in the New Innovation Landscape* (Harvard Business School Press, 2006) and *Open Innovation: The New Imperative for Creating and Profiting from Technology* (Harvard Business School Press, 2003). Chesbrough is also host of the Berkeley Innovation Forum – a community of innovation leaders who meet to exchange ideas, issues, and practices in innovation management.

Companies that derive their core identities from the success of their products and services must clearly define their strategies for innovation to assure continuous differentiation and growth. To foster the cultural change that such strategies may require, these companies must carefully align their core business and technology objectives.

Fostering the types of innovation that drive real business value may not be as easy as it looks, however. As the following discussion with Henry W. Chesbrough indicates, companies are best able to reap the benefits of innovation by synchronizing the "art" of creativity and collaboration with the "science" of business processes, supported by a unified technology platform.

Such "open innovation" involves reaching out to external parties such as suppliers, business partners, customers, and academics to define new business models collaboratively. It may also include the use of online services and tools established by intermediary organizations to facilitate business innovation.

Q: How are companies approaching open innovation, and what challenges do they face?

A: A recent survey of members of the Berkeley Innovation Forum indicated that many companies are using online marketplaces, customer involvement, and a variety of other methods to identify new technologies and approaches that they can bring into their organizations to support product and service innovation. However, only a few have successfully launched new products or services as a result that provided real business benefits. What companies need instead is a more unified approach that incorporates a wide range of internal and external support for innovation.

Q. It seems that there are both hard elements and soft elements involved in product and service leadership.

A: Yes. The hard elements relate to a company's IT infrastructure, innovation backbone, data availability, and business processes. The soft elements relate to trust, sharing, and the internal decision making needed to overcome the barriers that may isolate information within different parts of your company. Another way to look at it is that open innovation is both an art and a science.

Q: Before leveraging external expertise and partnerships, many companies must first overcome a "not invented here" mind-set – the resistance of smart, capable people to outside ideas that they didn't think of themselves. How should companies address this issue?

A: Most organizations with strong R & D capabilities have some sort of not-invented-here syndrome – so that seems to come with the territory. R & D organizations that have achieved some exciting things rightly believe that they have thought the issues through more than most other people in the world. But successful R & D teams recognize that – especially in collaborative endeavors – there are capabilities that

their members don't have. That's part of why the more successful teams take a collaborative approach. They're sharing their own information to gain access to information from other sources. Creating knowledge together can be very exciting and rewarding. So there's a human element at the root of overcoming the not-invented-here culture – which is part of the art of innovation.

At the same time, there are some very important issues that must be resolved with respect to intellectual property – part of the science of innovation, if you will. The collaborating parties must specify who will have rights to particular parts of the innovation – and under what circumstances. They must directly link these rights to the specific technologies and ideas that result from the collaboration. Once these rights are protected, information can flow freely among the parties.

Q: How do you ensure that you develop a strategy for intellectual property early enough to support co-innovation?

A: Waiting until the end of a project will likely create both legal and business problems and won't facilitate the alignment among collaborators and their organizations necessary for successful co-innovation. A better approach has been the creation of templates that specify general legal guidelines for collaborative relationships.

When a company engages with outside parties, it must decide early on which template is the best fit for the kind of relationship everyone wants. The templates help all the parties walk through a wide range of variables at the beginning of the process to support and trigger legal questions as they arise and decide when termination clauses should be activated.

Q: What in your mind is one of the greatest benefits of open innovation?

A: Open innovation can actually reduce the risk of wasting organizational time and resources on dead-end ideas.

On one hand, when you innovate internally, you know exactly where the ideas came from. You know the people who worked on the project and their reputations for previous work. You also tend to be confident in what you've developed internally and have a great deal of knowledge about it. You don't have the same context when you're pulling something in from the outside.

When you innovate from inside, however, you fund both successful projects and all the false starts along the way. With outside sources, you typically require some sort of validation. The external collaborators already went down all the blind alleys and dead ends. You only see the things that have survived the testing and development process. Just as you qualify the processes of vendors in your supply chain, you can qualify the processes of your co-innovation partners.

Q: What are some of the more successful ways of engaging product development teams in open innovation?

A: Sometimes a collaboration will involve the colocation of various parties so that they are actually seated together for a period of time. This enables creative friction and provides the chance to share ideas more rapidly and more deeply. Some companies place their

researchers at a customer's location, for example, so that they can immerse themselves in the customer's problems and work side by side with the customer's technical staff. The key is to give the researchers access to all the back-office capabilities of their home organizations that will help them succeed.

Q: Often, various divisions of a company – marketing, R & D, and service, for example – look for outside support in different ways and ask different questions of the business network. How can they coordinate across these divisions and centrally manage the feedback received from external collaborators?

A: The leaders of innovation must think about the upstream processes for accessing information as well as the downstream processes that will be affected by that information. In our study, many respondents indicated that one division was managing the innovation process without providing other parts of the organization with the visibility required to participate in the process effectively.

A better approach would be for companies to develop competencies for orchestrating open innovation across their enterprises and extending those competencies to the respective external collaborators – instead of the other way around.

Q: What should companies consider when designing a business model for delivering a new product or service?

A: This is largely a matter of changing the way that they look at their businesses. It can take a heroic effort to validate an idea – especially since that idea may turn out to be impractical or not applicable for future business needs.

Companies that consistently provide access to information across their organizations can facilitate the effective simulation and validation of potential new products and services and more precisely estimate their costs and strategic impacts.

Q: One area that has been considered more art than science is product portfolio management. Is it possible to link real-world performance to determine a return on innovation – to bring in some hard facts, or "science," to support a continuous innovation strategy?

A: Yes. There are a few organizations that do this very well internally, but I think they tend to be the exception. However, those that can consistently evaluate the return on innovation will find it invaluable to fine-tuning their ongoing strategy and planning efforts.

Please see the companion SAP thought leadership paper *Continuous Innovation for Product and Service Leadership* for more information on this subject, or contact your SAP representative.

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