Open Innovation Practices & Outcomes Benchmark Survey
Spring 2009

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Executive Summary

What is the state of open innovation today? To answer this question, we surveyed more than 100 open innovation practitioners from a number of diverse, global industries. This survey, together with our knowledge of open innovation practices, provides a unique perspective on open innovation today and into the future.

It is interesting to note that six years after the publication of Dr. Henry Chesbrough’s book, Open Innovation: The New Imperative for Creating and Profiting from Technology, 49% of the people we surveyed still felt that they are in the early stages of open innovation adoption. Is this a function of a wait and see mentality; meaning, would companies like to see tangible benefits from other companies’ open innovation efforts before they introduce a program into their own company? Or is it because open innovation requires culture change and as most companies have learned, that doesn’t happen overnight. Our perspective is that fully embracing open innovation takes time.

At the same time, people in the early stages of open innovation indicated that their companies’ reliance on external partnerships would significantly increase during the next five years. More and more, companies are realizing that they can’t “go it alone” when it come to getting new and innovative products to market. The increasing emphasis on external partnerships is what is at the core of open innovation and what will ultimately help move companies farther along the OI adoption curve.

Another interesting aspect of the survey is the Chart on page 7 that shows that open innovation is still primarily owned by R&D organizations. Open innovation is often driven by middle management up in the organization. Only after the OI program is moving forward does leadership embrace it and become a driving force.

As one would expect, there is a wide divergence in terms of the elements of an OI program between the companies in the early stages of open innovation and those that are more mature in their practice of OI. As companies gain experience, they are more comfortable with the use of intermediaries, proprietary networks, venture funding and other elements, which can help them engage the global innovation community to source new and innovative ideas, capabilities and technologies.

The other key area that the survey highlighted is OI metrics. More than 50% of those surveyed reported that they do not use metrics at all. Clearly this is an emerging area for further work. NineSigma sees a growing need to develop a core set of OI metrics that can be applied at the different stages of OI adoption. We are actively working with a number of companies in this area.

Lastly, there were a wide range of benefits reported as a result of open innovation. Primary among these benefits is an increased richness of the technology portfolio and an increase in R&D productivity. Interestingly, over half of those surveyed also reported improved reputation as a benefit from their open innovation programs.

We look forward to continuing this survey in future years gaining additional insights into the practice of open innovation.
Report Overview

The Open Innovation Practices & Outcomes 2009 Benchmark Survey was sent to research and development executives and business unit leaders beginning in December 2008 with the survey closing in January 2009. The survey was designed to identify the main factors that impact the practice of open innovation primarily in companies exceeding $1 billion in revenue.

More than 100 innovation leaders responded to the survey. They provided insight into the increasing focus on open innovation as a key innovation strategy. In addition, they identified common barriers to launching or successfully implementing an OI program.

The survey reveals many interesting findings from leading practitioners who are on the “front line” of open innovation.

Who should read this report . . .

- Research and Development managers and executives
- Marketing and New Product Development managers and executives
- C-level executives
This benchmark study provides insights into the role of open innovation within companies today and in the near future. The report is based upon the results of a multi-question survey and includes discussion points about the data. The survey responses came from representatives of leading organizations across a variety of industries, many of which have actively used OI programs for many years to enhance their internal product development and R&D efforts. The results produced a variety of notable findings, which will be discussed throughout the report.

Among the findings are:

- The increasing importance of external partnerships in the next 5 years;
- A notable difference between the barriers to OI adoption reported by small and large companies;
- A response from more than one-third of respondents that they are “lagging behind” their peers;
- More than half of the respondents report that they are not applying any metrics to open innovation in their organizations.

Among the survey questions asked were:

- How did your company get started with OI?
- What is the focus of your OI effort?
- How important are external partnerships to your company’s innovation strategy?
- What have been your company’s greatest barriers to OI adoption or growth?

The research was conducted independently by NineSigma, a leading provider of open innovation services and solutions. NineSigma used an online survey to collect the data. Of the more than 100 respondents, nearly one quarter of them represent the consumer products industry, 18 percent work in the food and beverage industry and 13 percent are in the chemical industry. Other industries represented in the respondents included biotech, medical and pharmaceutical, automotive, industrial products, materials and energy. The majority of the companies (77%) represented in the survey earned in excess of $1 billion in revenues; 36 percent of the companies have revenues in excess of $10 billion. Eighty-two percent of the survey respondents represented the research and development function of their business. The survey was divided into three sections; OI Background, OI Growth and OI Outcomes. Data was collected between December 2008 and January 2009.
Section I: Open Innovation Background

When it comes to adopting or using open innovation, companies are in varying stages of development. For the purpose of this survey, NineSigma gave respondents four options when asked their companies’ OI status; early stages, optimizing, relaunching and not-involved. Most respondents felt their companies were in the early stages of open innovation (49%). Generally, these companies understand the value of leveraging external resources to further their innovation efforts and are currently researching and/or experimenting with different OI processes and tools. The majority of these companies have less than $10 billion in revenue.

Companies in the optimizing phase (40%) typically have made a significant commitment to open innovation, and are in the process of refining and shaping their programs to help them establish best practices that they can then replicate successfully. Half of the companies in the optimizing phase report revenues of more than $10 billion a year.

Through our experience working with numerous global companies, we agree that the majority of companies are still in the early stages of OI adoption. Companies can move quickly from the early stages to the optimizing phase by clearing defining OI roles, strategies and opportunities while working to integrate open innovation into their culture and innovation processes. The data supports our own experience that large companies have been the early adopters, but open innovation benefits any size organization. There are many lessons that new users of open innovation can learn from the early adopters.
Companies in the optimizing stage practice more approaches to open innovation than their early stage counterparts. When asked to select the different approaches to open innovation that their companies practiced, respondents that indicated they were in the early stages of OI adoption focused their efforts on supplier co-innovation (77%), scouting (65%) and university co-innovation (69%). Scouting is the leading type of open innovation practiced for optimizing companies, followed by supplier co-innovation (82%) and university co-innovation (80%). Whereas there was a significant drop in other areas for early stage companies, more than half of optimizing companies also reported in-licensing (69%), using OI intermediaries (64%) and participating in consortia (54%) as other ways they have integrated open innovation in their organizations.

Companies in the early stages of OI adoption tend to focus on a few core activities. As people and companies grow more comfortable with being open, the use of intermediaries expands. As open innovation becomes embedded within a company’s culture, they become more comfortable with the opportunities to leverage the global innovation community, and they are more likely to embrace a broad approach to open innovation. As companies move into the optimizing stage, the more approaches to open innovation they practice. When asked about the types of OI approaches they practiced companies that consider themselves leaders in open innovation spread their efforts and resources across a variety of OI areas. The lagging companies repeatedly focus on the “usual suspects,” or the same network of external resources (suppliers, universities and contractors) that they are comfortable with versus reaching out broadly to the global innovation community for sources of innovation.
The driving force behind open innovation among early stage companies is the research and development middle management (41.5%) and leadership (34.1%) teams, while less than a quarter of the OI mandates are begun by company leadership. For those companies in the optimizing stage, it is clear that as the company experiences success in open innovation that the R&D and corporate leadership teams become more involved in the process. As companies move from early stage to optimizing, the driving force behind open innovation shifts from middle management to leadership.

When asked about the current focus of their OI efforts, organizations that consider themselves leaders in open innovation listed new product development (92%), basic research (48%), and disruptive innovation (48%) as their top three areas. Companies that considered their OI efforts as lagging, ranked new product development (79%), basic research (47%) and cost, quality, and cycle time improvement (21%) as their core focus areas. Leading companies however, are more likely to use a variety of OI approaches while lagging companies rarely move beyond the three top areas.

From this survey, it is clear that the majority of companies implement OI programs because of the influence of R&D middle management and R&D leadership. Once the corporate leaders have seen the value in open innovation, they are likely to become more engaged working with R&D leadership to further optimize OI programs. Leadership support drives optimization, and when the leadership voice is more mixed, it is harder to get to optimization.
One of the key questions asked in the survey was the current and projected importance of external partnerships. Less than 43% of those surveyed felt that external partnerships were important to them in 2008, yet they become increasingly more important in 2009 (67.3%). When asked how important external partnership would be to their organizations in five years, nearly 90% of participants responded with a 4 or a 5. Only 3.1% of the respondents indicated that external partnership would not be important to their companies in five years.

More and more companies are realizing that they can’t do everything internally. With pressure on internal R&D budgets and the challenges in attracting talent, companies have to look for help externally in order to engage partners that can provide new breakthrough innovation. Talent is now a global resource, and companies must consider how they identify and create partnerships with talent regardless of where it is located. Beginning in 2009 and increasingly through 2014, companies acknowledge that external partnerships will be an increasingly more influential aspect of their businesses.
Section II: Open Innovation Growth

The chart below illustrates the barriers of adoption or expansion of open innovation by company size. According to respondents from companies with more than $10 billion in revenues, the top two barriers were the ability to extract value from OI initiatives and willingness to share ideas. This contrasts dramatically with companies with between $500 million and $1 billion in revenues. While the small companies are more willing to share ideas, the strongest barriers for them are finding qualified people and modification to their intellectual property approach.

Large companies are more likely to worry about embedded processes and culture that make it difficult to expand and extract value from open innovation programs. Typically these larger organizations are more set in their ways, harder to redirect activities and have cultures that don’t accept change very easily. Due to their size, larger companies are less worried about the availability of qualified people and finding strategic partners. Smaller companies that face economic and resource constraints are more concerned with finding qualified people and based on their more entrepreneurial focus less worried about sharing ideas outside the company.

When asked an open-ended question:
What has been your company’s greatest challenge in adopting or implementing Open Innovation, responses fell into the following categories:

- Mindset or culture
- Current work processes & priorities
- Resources/funding
- Ability to find or execute on external ideas

Excerpts:
- “Identifying challenges appropriate for Open Innovation and finding OI partners”
- “The deep-rooted belief that in our industry it is not relevant (we are too specialized)—this message is reinforced from the top”
- “Re-orienting strategy to a co-development one from that of pure in-licensing”
- “Expanding to include more open communication of our issues and asking partners to help solve them”
he chart below indicates the percentage of new products that will contain elements or influence from external sources. In summary, during the next 5 years, the percentage of new products with elements originating outside the respondent’s company will increase dramatically. In 2008, 10-20% of new products released by survey respondents contained elements from outside their companies. In 2009, 40-50% of products with outside elements will double from 4.4% in 2008 to 8.9%. Within five years, more than 50% of products with elements from external sources will double from 6.7% in 2009 to 13.5%.

The growth in the number of companies embracing open innovation as a complement to their internal product development and R&D fully supports the findings illustrated in the above chart. As more companies turn to outside sources for help with their technology challenges, then a greater percentage of products will contain elements from those sources.
Section III: Open Innovation Outcomes

Respondents were asked about the benefits of adopting OI programs. The majority of companies (77%) felt that the biggest benefit was an increase in the richness of their technology portfolio. This was followed by the ability to find non-core competencies (66.7%), increased R&D productivity (58.3%) and an increase in speed to use (51.6%).

Clearly, more than half of the people surveyed are finding success across a variety of key areas that enable their ability to innovate. The fact that more than three-quarters of the people have enriched their technology portfolio and two-thirds have found non-core competencies to strengthen their ability to innovate speaks to the opportunities that exist when going beyond the usual suspects. While the survey does suggest that improved decision making is not one of the core benefits experienced by the majority of those surveyed – based upon our experience in open innovation, we have found that companies do make better decisions when they combine knowledge gained through open innovation with their internal knowledge. This combined knowledge provides a broader input into the decision making process resulting in reduced risk in decision making.

Excerpts:
- “Promote change and open-minded approach”
- “New network ties – new ways of thinking”
- “Increased ability to adopt new skill sets and technological capabilities”
- “Bringing R&D and commercial functions closer together”
When asked to rank how they see their company in terms of open innovation, only 26% considered their companies as one of the leaders. A slight majority felt that they were within the mainstream while 36% considered their companies lagging behind their peers.

NineSigma Analysis:

A lot of companies are still in the early stages of open innovation. While 36% felt they were lagging behind their peers, there are a limited number of true leaders in open innovation.

NineSigma sees a progression in open innovation through the stages of (1) Launching; (2) Consolidating and (3) Embedding. Companies in the Launching stage are just beginning their OI efforts. As they progress to the Consolidating stage, they are capturing their learning and beginning to implement best practices and spread open innovation more broadly across the enterprise. Finally, in the Embedding stage companies have an OI strategy that is clearly articulated inside and outside the corporation, as well as a well defined, visible and established structure that drives open innovation broadly across the organization.

The majority of companies we are working with today are somewhere in either the late stage of Launching or in the early stage of Consolidating. We definitely see a strong trend to continue to push the OI agenda in order to capture and expand the benefits that open innovation brings.
Metrics is clearly an emerging area of open innovation. For many companies the application of metrics to the open innovation program is lagging far behind the broader OI implementation. As can be seen from the chart below, roughly two-thirds of optimizing respondents measure OI performance compared with only one-third in early stages. Even optimizing companies are early in their metrics development, focusing on the obvious inputs and outputs, such as the number of projects and ROI. Fewer respondents in either category employ metrics measuring adoption or OI contribution.

In the past, measuring the success of open innovation has been a challenge, as many companies have not applied consistent metrics to their OI programs. As companies progress through the stages of OI adoption, the metrics change which means there needs to be a continuing focus on metrics and not a one-time definition. Among those that are considered early stage OI companies, the fact that the majority do not apply metrics, lends itself to the question that without metrics, will they truly be able to see how open innovation has impacted their organization? If the answer is no, then it is likely that the early stage companies will not progress to the point where they will be considered optimizing. Companies with more seasoned OI programs do apply a variety of metrics, and as a result, likely find ways to identify successes and continually enhance their programs and progress.
Conclusion

Open innovation has been called a “radical departure” from the conventional model of closed, internal innovation. As the results of this survey suggest, the practice of open innovation is expanding and has become a critical enabler of a firm’s ability to innovate. Open innovation is about gaining leverage. It provides the means for leveraging the global innovation community to help solve today’s toughest product development challenges and identify sources of new breakthrough innovation. As a result, an increasing number of companies are now more open to sharing the risks and rewards of open innovation with partners outside their traditional networks. Ultimately, it is this increased openness that will help companies to accelerate product development and find new opportunities in the marketplace to fuel revenue growth.

From the results of this benchmark survey, we were able to draw four major conclusions:

- First, there will be a continuing expansion of the use of external partners found through open innovation in new product development.
- Second, open innovation will become increasingly embedded throughout the organization as a natural component of how companies innovate.
- Third, there are a wide range of benefits available to the firm as a result of open innovation.
- Fourth, metrics is an emerging area that will enable consistency and continuous improvement in open innovation performance goals.

About NineSigma

NineSigma helps Global 1000 companies develop and maximize value from their open innovation programs. Companies such as GlaxoSmithKline, Kraft, Philips, Unilever and Xerox engage NineSigma to build new knowledge and capabilities that accelerate the innovation cycle and increase productivity. A leader in open innovation, NineSigma has the largest open global network of solution providers and an extensive database of existing solutions that span all industries and technical disciplines. In 2008, NineSigma ranked among the top 20 percent of companies on the Inc. 5000 list of fastest growing private companies in the United States. The company also has operations in Europe and Asia. For more information, visit www.ninesigma.com.