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BY ARVIND MALHOTRA, ANN MAJCHRZAK, LÂLE KESEBI, AND SEAN LOORAM

AS ORGANIZATIONS LOOK for better solutions to their everyday problems, many are encouraging their employees to use their experiences to develop new ideas and play a more active role in the innovation process. Whether the issue involves improving hiring practices, deciding which new products or services to offer, or creating better forecasts, companies including AT&T Inc., Google Inc., and Deutsche Telekom AG have turned to what's known as internal crowdsourcing.¹

Although external crowdsourcing, which involves soliciting ideas from consumers, suppliers, and anyone else who wants to participate, has been widely studied,² internal crowdsourcing, which seeks to channel the ideas and expertise of the company's own employees, is less well-understood. It allows employees to interact dynamically with coworkers in other locations, propose new ideas, and suggest new directions to management. Because many large companies have pockets of expertise and knowledge scattered across different locations, we have found that harnessing the cognitive diversity within organizations can open up rich new sources of innovation. Internal crowdsourcing is a particularly effective way for companies to engage younger employees and people working on the front lines.³

We conducted a four-year study of how multiple companies used internal



THE LEADING QUESTION

How can companies get the most benefit from crowdsourcing within the organization?

FINDINGS

- ▶ Allow employees to participate anonymously.
- ▶ Take steps to make sure company experts don't exert their influence too heavily.
- ▶ Use platforms and processes that foster collaboration.

crowds that included frontline employees to find new solutions to business challenges. We observed internal crowdsourcing in practice, interviewed executives who sponsored internal crowdsourcing innovation challenges, and surveyed participants. We also participated in the design, implementation, and execution of internal crowdsourcing events at several companies. (See “About the Research.”) In this article, we will examine the benefits of internal crowdsourcing, the roadblocks that stand in the way of successful initiatives, and ways crowdsourcing efforts can be designed to overcome those roadblocks.

The Benefits of Internal Crowdsourcing

Companies that employ external crowdsourcing need to confront several issues.⁴ First, because many of the crowd participants aren’t specifically familiar with the organization or the context in which it operates, a high percentage of the suggestions may not be easy to implement. The voice of the customer obtained through external crowdsourcing may be very good at describing the pain points and needs but not necessarily good at figuring out how to solve the problems. Indeed, proposals often call for strategic assets that companies don’t have and can’t afford. What’s more, external crowdsourcing can stir up intellectual property issues involving who owns the ideas.⁵

While internal crowds are typically not as diverse as external crowds (and therefore less apt to

propose radically new ideas), they have more localized knowledge. This can help companies turn suggestions into workable actions better and faster. Employees, especially people working on the front lines, often have intimate knowledge about the kinds of changes that are feasible, given the company’s circumstances and current assets. Many of the solutions can be formulated as patches and workarounds to satisfy particular needs, and solutions obtained through internal crowdsourcing can have a rapid impact in the marketplace. In addition, the intellectual property issues tend to be less complicated because employees, rather than outsiders, are the ones providing the ideas. (See “Comparing the Benefits of Internal vs. External Crowds.”)

Internal crowdsourcing events enable employees to express their ideas. By organizing these events, companies can send the important message to employees that their knowledge is valuable and the company depends on it. With mechanisms to share their views and structure internal collaboration, employees can feel empowered and engaged in the company’s innovation efforts. Research shows that employees working in collaborative environments tend to be more satisfied with the innovation process.⁶ This can lead to higher employee morale and lower turnover.⁷

Roadblocks to Successful Internal Crowdsourcing

As fruitful as internal crowdsourcing can be, it’s common for companies to hit roadblocks in reaping the full potential of internal crowds. In the course of our research, we have identified seven barriers that involve participation, collaboration, and implementation. They are:

1. Rather than encourage employees to think broadly and creatively, companies often ask employees to concentrate on incremental adjustments to processes and on improving existing products and services. In doing so, many employees become confused about the purpose of internal crowdsourcing and how it’s different from other initiatives in the company, such as continuous quality improvement and business process reengineering.
2. Given their other work responsibilities, many employees don’t have time to participate in crowdsourcing activities.

ABOUT THE RESEARCH

This article is based on a four-year, multi-method research project with companies engaged in internal crowdsourcing. In one part of our research, we conducted in-depth analyses at three large organizations (one in health care, one in telecommunications, and one in retail), and we conducted interviews with the executives in charge of the internal crowdsourcing. At the health care organization we studied, the chief medical officer was in charge of engaging frontline employees in the internal crowdsourcing process; two of us provided guidance and oversaw the execution of the company’s internal crowdsourcing effort. At the telecommunications company, we worked with a senior executive in charge of the internal crowdsourcing effort. At fashion and retail company Li & Fung Ltd., we had access to the ideas, documents, and thinking process behind the design of an internal crowdsourcing event.

In addition, we collected data related to platforms and the design of incentives for crowdsourcing challenges at seven other companies, which were identified through a university-affiliated innovation center. They included a distribution company, a Scandinavian telecommunications company, a U.S.-based telecommunications infrastructure company, a data storage and analytics company, a graphics design software company, an industrial products company, and an e-commerce platform provider. Our partner at each organization was either the chief innovation officer or the CEO.

3. Employees may be hesitant to participate, particularly when managers and internal experts are part of the mix and are using their real identities. This dynamic may crowd out people who have knowledge that can lead to innovative solutions or who want to develop solutions by working with others in the crowd.
4. Most companies run their crowdsourcing initiatives using a competitive process. Rather than encouraging participants to work with others to create solutions together, some companies distribute rewards based on the ideas submitted by individuals.
5. Sometimes, the technology platforms themselves focus people on contributing ideas and not on developing solutions together.
6. After crowdsourcing events end, employees don't always receive sufficient information on what happened to ideas.
7. Over and above the lack of feedback, those who suggest solutions don't always get opportunities to develop their ideas into solutions.

Removing the Roadblocks

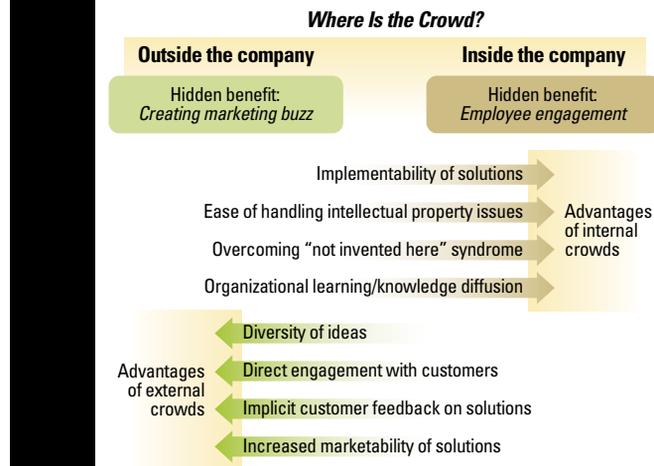
In response to the roadblocks we have noted above, we have developed a set of seven action steps to help executives make their internal crowdsourcing efforts more effective. The first four steps should be considered either before or during a crowdsourcing event; the others are used once the event has occurred.

1. Keep the focus on innovation. It may be tempting to use internal crowdsourcing events to solicit ideas about short-term improvements. However, to get the most out of internal crowdsourcing, companies should resist this impulse and encourage employees to keep their focus on long-term opportunities. A large research and development (R&D) company we studied, for example, announced that it wanted employees to identify products and services that would be feasible in 2025. This encouraged employees to think more broadly than usual.

Other companies have defined challenges in a more open-ended way. A U.S. telecom infrastructure products and services provider presented its employees with a general question: "What are some strategies for our company to transition to a services-centric business to address new markets and new customers?" How questions are framed is

COMPARING THE BENEFITS OF INTERNAL VS. EXTERNAL CROWDS

While internal crowds are typically not as diverse as external crowds, the solutions employees propose may be more readily implemented and can have a rapid impact in the marketplace.



a critical component of signaling and can influence how employees approach internal crowdsourcing initiatives.

Another critical aspect of establishing the grounds for creativity is to share with crowdsourcing participants the criteria that will be used to filter and select the best solutions. For example, an R&D-intensive company we studied disclosed the following parameters that its executives planned to use for selecting solutions: 50% would be weighted on crowd voting, 30% on novelty of the idea, and 20% on the potential to create new businesses. Fashion and retail company Li & Fung Ltd., based in Hong Kong, told employees that solutions from internal crowdsourcing would be picked based on six criteria: (1) ability to meet customers' unmet needs, (2) delighting the customer, (3) the solution's newness, (4) marketability, (5) commercial viability, and (6) scalability.

2. Give internal crowdsourcing participants slack time. One of the main reasons people participate in external crowdsourcing events is to have fun.⁸ However, a critical difference between external and internal crowdsourcing is that many employees, particularly frontline employees, have very little discretionary time to participate. A managed health care company came up with a smart way to engage internal employees without undermining existing schedules. It notified supervisors of proposed dates for internal crowdsourcing events and asked them to

select days when they could give employees some downtime. Once the dates were set, supervisors encouraged employees to participate in the internal crowdsourcing innovation challenges. We found that offering employees slack time to participate in internal crowdsourcing events can be a key factor in making the events successful, especially when the companies want the employees to work together to develop new solutions. When done well, internal crowdsourcing challenges not only produce ideas but also engage employees in a learning process.

3. Allow for anonymous participation. Difficulties can occur when participants in internal crowdsourcing use their organizational identities. Rather than freely promoting ideas that address the issues at hand, some individuals may feel compelled to defend their formal positions. Internal crowdsourcing participants should feel safe about contributing knowledge, regardless of their seniority or role in the company. One way to encourage this is to offer a degree of anonymity. Several of the companies we studied allowed employees to contribute their ideas anonymously, freeing them up to share knowledge that they might have kept to themselves if they felt pressured to advocate on behalf of the units they represented. Providing a psychologically safe environment leads to greater employee participation and collaboration, resulting in more effective innovations.⁹ At Li & Fung, for example, almost 90% of the solutions the company received through internal crowdsourcing challenges were from junior to mid-level employees, and about 30% of the solutions were proposed by people working in support functions such as human resources, IT, and finance.

Participants who are forced to use their real names often feel exposed during internal crowdsourcing challenges, especially if they are recognized internally as subject matter experts. With anonymity, they don't have to worry about how their ideas "look." This allows them to focus on learning and integrating the knowledge being shared.

4. Take steps to ensure that company experts don't exert their influence too heavily. Experts within a company may be inclined to wield their knowledge during the idea generation process, and this can be harmful. Although the voices of experts are often valuable, they can intimidate others in the

company, who worry that they are out of place expressing ideas to a crowd that includes experts.

For internal crowdsourcing to produce innovative outcomes, efforts should be made to keep the process open to diverse perspectives. At an R&D-intensive company, the managers in charge of an internal crowdsourcing effort initially prohibited R&D employees from participating in a crowdsourcing event. The company changed its position when participants asked to see research evidence related to the question they were considering and specifically asked if they could hear from R&D experts.

A U.S. manufacturer, by contrast, determined that internal crowdsourcing participation by internal experts could be a strong plus. For its crowdsourcing initiative, the company asked some internal experts to serve as the moderators of crowd discussions. This involved teeing up questions to challenge the crowd to think of different ways to create new solutions. Among the questions the expert moderators asked: How could the idea be extended in new ways? How could we combine it with another idea? How could we differentiate it from other products on the market? How could we adapt the product to a different target audience?

There are benefits to both approaches. However, the decision to involve internal experts has a downside as well as an upside. Companies need to recognize that internal experts are often motivated to promote their own ideas. However, participants need to know that their suggestions will be highly valued. When engaging experts in an internal crowdsourcing event, companies should train them to operate as moderators and to do what they can to encourage others.

5. Use a collaborative process for internal crowdsourcing. One of the secrets to unlocking the creative potential of internal crowds is recognizing that the goal isn't simply to generate winning ideas. It's also to build a system through which people within the organization share knowledge, learn from one another, and offer pertinent knowledge for use in new solutions.

We saw companies use one or both steps of a two-step process to foster collaboration in internal crowdsourcing innovation challenges. First, they asked people to share pertinent knowledge related to innovation opportunities. The emphasis here was on broad employee participation: asking people to share facts, examples, trade-offs, and even



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wild ideas. Then the companies asked people to help shape the knowledge into comprehensive solutions. The majority of the companies we studied relied heavily on the second approach.

However, some companies find it useful to use a hybrid, multistage approach whereby in initial stages the internal crowd shares raw ideas through a technology platform. Then, in the later stages, ad hoc teams are formed to pursue the most promising ideas further and develop them into comprehensive solutions. For example, Li & Fung asked employees from around the world to submit their ideas via a web-based platform. After that, a team of executives and internal experts selected the most promising ideas, based on preestablished criteria. Employees had opportunities to vote on the best ideas, narrowing the selections down to eight. In the final stage, teams composed of the idea originators and others who helped refine the ideas presented the solutions to a senior team that oversaw the internal crowdsourcing challenge. The top three teams were then asked to refine their solutions before traveling to corporate headquarters to present to a broader set of executives.

Companies that use a multistage process should provide incentives so that employees feel it's worth their while to follow the process and support the overall goal. If rewards go only to people who propose solid ideas, there can be negative consequences. People with half-baked ideas will submit them in hopes of winning, but those who don't have solid ideas (but might have input that could conceivably lead to important ideas) will hesitate to share their knowledge without incentives to do so. On the other hand, if incentives are offered only to good collaborators, there won't be incentives to contribute initial ideas that can lead to the development of comprehensive solutions. For these reasons, most of the companies we studied that succeeded with internal crowdsourcing offered different types of incentives. For example, a large industrial products company offered modest rewards (\$50 gift cards) to both

top idea contributors and collaborators. Top collaborators were determined by aggregating points for contributing new ideas, commenting on and refining other people's ideas, and combining multiple ideas into more robust solutions. They also received points based on their voting on other people's ideas.

We found that many participants lacked the time to engage fully in innovation activities. Instead, they logged on to the platform, took part in an innovation activity if it was easy to do so, and then left. We also found that crowd members responded in different ways to internal crowdsourcing platforms. Some responded to outcome-based incentives; others responded to process-based incentives. Regardless of how companies structure their internal crowdsourcing process, executives should remember that processes and incentives drive behavior.

6. Design platforms that facilitate shared development and evolution of solutions. Currently, there are a number of platforms available for crowdsourcing. Ironically, the technology platforms that are intended to help companies use internal crowdsourcing can cause roadblocks. In many cases, the platform makes it easy only for participants to submit their own ideas; it does little to connect individuals with ideas from other participants. The inability to see what other participants are suggesting can be a barrier to collaboration. Even if the platform allows for knowledge to be visible by others, it may allow for only limited interaction (for example, commenting or voting on others' contributions). Internal crowdsourcing platforms that support more innovative solutions use an implicit multistage process. The platforms encourage crowds to share knowledge (such as how other companies or other industries have solved similar problems) and then work that information into creative solutions. In particular, there are three features that we believe foster creativity in internal crowdsourcing: (1) knowledge sharing among the crowd across a variety of knowledge types (not just

ideas); (2) the opportunity for coevolution of solutions by the crowd; and (3) the degree to which feedback from the crowd helps to refine ideas.

With these features in mind, we studied how companies used platforms to foster innovation in internal crowdsourcing challenges. The most popular platforms were online discussion forums and idea suggestion systems. When executives charged with innovation sought to engage individuals, they tended to use one of these platforms. However, such platforms do not explicitly encourage processes for groups to collaborate to create solutions together. Rather, they encourage individuals to post their ideas in the hope that other people will come in and refine the ideas. Although ideas can be refined after they have been posted, the platforms aren't designed to support and promote members of the crowd sharing knowledge that's relevant to the innovation opportunity. Online discussion forums also don't tend to make it easy for crowds to collaboratively piece together knowledge; even if some of the raw ideas have innovation potential, companies often need to wait until after the crowdsourcing event to sift through all the contributions, collect the innovation nuggets, and then work the ideas into comprehensive solutions. This post-crowdsourcing process can be onerous (particularly if the crowd generates thousands of potential innovation ideas). Given the time constraints and executives' predilections for picking solutions that leverage existing assets and capabilities, the executives in charge of sifting through and combining the ideas posted by the crowd may settle for less than optimal solutions.

While many companies use idea suggestion systems and online discussion forums, we found that some companies utilize co-creation platforms as a way to encourage greater crowd engagement and produce more innovative solutions from internal crowds. Such platforms explicitly encourage activities that go beyond the rudimentary activities of

idea posting, commenting, and selecting. Typically, the first stage encourages people to share knowledge based on their rich and diverse experiences. This may include providing: (1) facts and established practices relevant to the opportunity; (2) examples of how other companies have addressed similar opportunities; (3) preliminary ideas that other people might build upon; and (4) insights about how to approach trade-offs not as compromises but as opportunities for innovation. The second stage then encourages people to integrate the knowledge into coherent solutions.

7. Be transparent about plans for follow-up post-crowdsourcing. Once employees have participated in internal crowdsourcing events, they want to know about the results. Which ideas were selected for further development and why? Will people be asked to develop some of the solutions more fully? Companies need to have procedures for how crowdsourcing suggestions are handled. At the managed health care company, for example, the executives pledged to send out a detailed review of the crowd recommendations within one week of the completion of the internal crowdsourcing event. The project team committed to sending an email to all participants both announcing the winners and describing how the team planned to move ideas forward.

It's common for employees to be curious about how the ideas they submit are being viewed — and more specifically, who “owns” the solutions. In several settings, we found that crowdsourcing participants wanted to play a role in prototyping, testing, and implementing the ideas they proposed. A large international software company responds to this type of interest by inviting members of winning teams (both the initial proposers and collaborators) to participate in implementation efforts.

To maintain interest among employees whose suggested solutions are not selected for further development, companies should work to establish an

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atmosphere of openness and fairness. This can include providing opportunities for people to submit solutions more than once. One telecom company, for example, encourages employees whose solutions were not selected in the initial round to resubmit the ideas for consideration. The senior executive in charge of internal crowdsourcing sees this as a way to encourage participation and to demonstrate fairness.

Another way to demonstrate fairness is to commit to providing substantive feedback to employees who suggest solutions that are not chosen. Although companies are accustomed to giving recognition to teams who submit winning solutions, they don't always offer clear criteria to guide the process or take the time to follow up with employees who don't win. But these efforts can pay big dividends in terms of driving future participation and generating better solutions later on. If internal crowdsourcing is to become an important mechanism for the organization's ongoing renewal, management needs to be serious about offering feedback.

In general, because roadblocks can surface at different points in the internal crowdsourcing process, the activity needs to be actively managed to ensure high levels of employee participation. However, it may be well worth the investment. The potential benefits of greater employee engagement are significant. A senior manager at an e-commerce solutions provider, for example, told us that during a 10-day crowdsourcing challenge, employees proposed more than 100 new solutions. Moreover, companies such as Li & Fung have noted that the level of employee participation in internal crowdsourcing events often goes well beyond what other collaboration mechanisms (such as virtual teams, face-to-face brainstorming, and innovation workshops) achieve. Despite its challenges, internal crowdsourcing can be used to unlock a company's innovation potential.

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