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Innovation is a team sport

By **Dirk Deichmann**

After reviewing the results of an employee innovation programme at a major European corporation, my colleague Michael Jensen and I came to two conclusions. First, people often prefer to come up with ideas alone. Second, this tends to be a mistake.

Hell may be other people, as Sartre observed, but data suggests they're also an important part of successful innovation: in our study of a European energy company we'll call Enco, we found that ideas that had at least one co-author were 3.2 times more likely to be adopted. Not only were such teams more successful quantitatively, they were also more successful qualitatively: loners offered incremental suggestions, while teams were more likely to come up with more radical concepts.

Enco started its innovation programme as a safe space for its employees to develop ideas that might one day radically transform the energy industry. The programme was open to participants from all levels and functions and encouraged them to come up with concepts for a wide range of things, such as for potential markets, new products and services, or fundamental changes in processes. Successful ideas developed via the innovation programme have yielded, among other things, a new imaging technology that increased production efficiency and a new material that helped create a new market segment for Enco.

The talented tenth

For our study, we reviewed the results

of Enco's internal employee innovation programme over a 12-year period between 1996 and 2008, during which 908 idea generators proposed a total of 1,792 ideas to Enco's independent innovation unit. Of those 908 inventors, 598 developed only one idea while 310 proposed two or more.

We defined ideas as successful if they were among the 10 per cent of ideas that passed two rounds of screening and were recommended for investment by the company. Idea generators whose ideas passed the first round of screening were given some time off from their regular duties, and if necessary, some research money to develop their ideas further. After that second stage, they presented their idea to a broader group of experts consisting of employees from the innovation programme and other internal and external individuals with expertise in specific areas relevant to each idea.

Cheering for the home team

Teams are the default organisational unit of the modern corporation for many reasons, not least of which is that a number of studies have found that teams tend to encourage more collaboration and creativity. Not only does the inventor gain more exposure to other ideas, but working with oth-

ers also gives the person more help in refining their idea and developing their persuasive skills.

However, despite these advantages, we found that Enco innovators tended to avoid joining a team if they could help it, and we wanted to find out why. Given that the advantages of working with a team to develop an idea are well established, why would people choose to work alone?

After conducting some interviews and thinking through the alternatives participants faced, we concluded that innovators had to weigh two principal trade-offs when deciding whether or not to join a team, one practical and one social.

First, being part of a group might gain you more resources, but it requires more co-ordination. While teams have become the standard unit organisations use to tackle complex tasks, these employees of a vast multinational corporation were keenly aware of how easily the communication and co-ordination demands of working with teams can overshadow the potential benefits.

Second, being in a team is less work, but you have to share your rewards. As in the academic world, our impression was that solitary success at Enco offered greater potential for reputational glory than the success of a group project.

However, in certain circumstances, people were more open to working on a team. This often happened if they had already succeeded with their initial idea. Having gone through the process of developing an idea alone, they were perhaps more aware of how diffi-



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cult it is to successfully develop an idea and might be more receptive to teamwork. Others may have concluded that they were lucky with their first idea and wanted to hedge their bets the second time around, concluding that the gain of extra resources outweighed the pain of co-ordination.

Still others may have gained confidence from their initial success, which made them more open to sharing the potential rewards of proposing an idea with a larger team. Researchers on scientific collaborations have noticed a similar pattern among academics: many who showed superior performance writing alone early in their career prefer to work with a team as they gain more experience. Here too, their reasons are similar: after their first-time success, scholars tend to

have more to gain from sharing than withholding their expertise. Whatever the precise combination of reasons, previously successful inventors were much more likely to make their submission as part of a team than the average applicant.

Finally, people working on a radical idea were more open to teamwork. We believe more radical ideas demand a wider range of expertise than an incremental improvement, making such innovations more difficult for the individual inventor to develop. For wild ideas too, numbers may also provide some additional reputational safety.

Useful lessons

Enco is a unique company in many respects. However, I believe managers interested in promoting innovation con-

tests can draw several useful lessons from our research:

1. *Teamwork matters but the size of your team does not.* Any time more than one person worked on an idea, its chance of adoption increased dramatically. However, whether the team numbered two or 12 didn't make any difference to the outcome.
2. *Practice makes perfect.* To an extent, innovation is a numbers game. Designing an innovation programme in a way that maximizes the number of entries should encourage more successes.
3. *Encouragement is essential.* Most people submit one idea and then quit. To encourage more entries, the innovation manager should find ways to act as an encouraging coach as well as a judge.
4. *Be a matchmaker.* Finding the right team is not always easy, particularly in a large organisation. A well-structured innovation system could serve an important role in bringing people with complementary ideas and expertise together.
5. *But let inventors pick their own teams.* The voluntary nature of joining a team at Enco appears to have encouraged deeper personal investment than if team membership had just been assigned. Giving people the opportunity to form their own teams probably increases their emotional stake in the project. ▶

Of course, there is a lot we still don't know about the care and feeding of employee-inventors. Future research could address, for example, whether certain trade-offs (such as access to resources versus the co-ordination burden, or sharing the work versus sharing the rewards) made certain idea generators more prone to working with a team than other trade-offs did.

Another avenue for future research could be to examine team formation processes by focusing on their degree of formality. The innovation programme we studied featured a structured idea-development process that

team formation easier, at least when it comes to early-stage ideas.

Conclusions

Our research suggests that idea generators often ignore the advantages of teamwork until they have a successful idea. But partly because they don't work with a team, most won't succeed. On the basis of these findings, we conclude that idea generators should consider the pros and cons of teamwork very carefully – and innovation programme organisers should consider how they organise their process even more carefully.

This article draws its inspiration from the paper *I can do that alone...or not? How idea generators juggle between the pros and cons of teamwork*, written by Dirk Deichmann and Michael Jensen, and published in *Strategic Management Journal*, 39 (2), 458-475. DOI: <http://dx.doi.org/10.1002/smj.2696>

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was managed by an independent unit within Enco, which could award funding and time to help people develop breakthrough ideas.

However, the programme also has informal characteristics in that idea generation is not a formal part of anyone's job and teams are self-organised. Observing a company that also tries to encourage innovation but with even less formal structure could be an opportunity to gain a clearer understanding of team formation processes and the conditions that influence them. For instance, one can imagine that a less formal review process might make

In the final analysis, ideas are a company's most valuable asset. New product and process ideas constitute the lifeblood of growth and competitive advantage. All things being equal, the company that can identify and execute better ideas more quickly than its competitors will eventually win. Yet most companies still go about generating ideas in a somewhat haphazard way that ironically enough serves to systematically discourage the vast majority of potential innovators. An innovation programme is a good idea, but an innovation programme designed to maximize an organisation's creativity would be a better one. ■