Can you benchmark the impact of communities of practice? It’s certainly a difficult task, as the authors of this article will testify. In order to develop a better evidence base for evaluating the effects of CoPs, they collaborated with the Knowledge and Innovation Network (KIN) and the IKON Research Group at Warwick Business School to launch the first large-scale study of CoPs across a range of sectors. In this article, Douglas Archibald and Richard McDermott discuss their findings and explain the next stages of their wide-ranging research program.

BENCHMARKING THE IMPACT OF COMMUNITIES OF PRACTICE

Insights into community performance across industry sectors

By Douglas Archibald and Richard McDermott

For the last decade, communities of practice (CoPs) have been the darling of KM, widely viewed as the most effective way to share the deep tacit knowledge of an organization’s professional staff. However, despite their popularity and perceived value, the extent to which CoPs contribute to organizational performance has been difficult to measure.

There have been many anecdotal case studies of how communities contribute to organizational performance, often documenting substantial financial savings, competitive advantage and business benefit.1,2 Authors have argued that CoPs decrease learning curves, reduce re-work and reinvention, increase staff satisfaction and develop new capabilities.3,4 Qualitative examples of community value are impressive, sometimes documenting millions of dollars of value. However, quantitative studies of the impact of communities on organizational and individual performance are much harder to find.

Many organizations have developed quantitative approaches to track the health or “success” of communities. Such approaches typically utilize measures relating to member growth and participation, on- and off-line engagement of core members, events, community-initiated projects, contributions, hits and downloads of material on community sites, as well as the number and speed of responses to community member inquiries.

Some organizations encourage communities to develop and spread success stories that demonstrate business benefits. Others have combined these measures into a comprehensive “health check” for their communities, as ConocoPhillips has (see box, page 16).

While community health checks often track measurable activity, however, they typically do not provide a basis for comparing the impact of communities within and across organizations. There has been no standardized way to quantitively assess and compare the value of CoPs’ contribution to performance across different organizations.

Can you benchmark communities of practice?

To develop a better evidence base for evaluating the effects of CoPs, the authors collaborated with the Knowledge and Innovation Network (KIN) and the IKON Research Group at Warwick Business School, in launching the first large-scale study of CoPs across a range of sectors. This study was funded by the UK’s Engineering and Physical Sciences Research Council (EPSRC).

Because communities operate in different organizations, different parts of each organization and have different purposes and structures, the comparative benchmarking we sought to undertake in this study presented us with a difficult task.

It soon became clear that the only feasible way to achieve this would be to develop and roll out a bias-free survey for members of different types of CoPs (for example, sales CoPs versus production CoPs) within and across organizations to complete.
Drawing on the expertise of the study’s subject-matter expert, Richard McDermott, the research team worked with participating organizations across different sectors to develop a ten-minute online CoP Member Survey. At the heart of the survey is a series of statements on the extent to which the community impacts on both individual and organizational performance. Selected examples of the statements are provided in Figure 1 (below).

Using members’ perceptions of the extent to which CoP participation impacts individual and organizational performance, we were able to compare CoP performance, both within and across organizations.

Members of CoPs are, of course, appropriate judges of the value they receive from the communities they belong to. Though they may be a less reliable source of input on organizational performance, they are frequently aware of the impact a CoP has on the wider organization.

This survey was sent out to members of 52 CoPs in 10 organizations, including ConocoPhillips, Deloitte, Oracle and Schlumberger. The sectors covered included oil and gas; aerospace and defense; technology; consulting; and engineering.

Each CoP member survey participant rated, on a scale of 1 to 5, the extent to which they agree with statements about their community. The average score given to each statement by members of the same community provides the “benchmarking score” for that community on that statement.

There were over 20 statements in all. Each CoP’s rank in the CoP Benchmark League Table is based on the aggregated average score given by members of the community for all statements on the survey.

Figure 1: Examples of statements on CoP impact presented to study participants.
Key factors that impact performance

The significant gap between the highest and lowest performing CoPs led us to expect that we would be able to clearly identify the factors that determine this difference. In order to identify the factors that lead to high-performing communities, we gathered additional data from both community members and leaders about the characteristics of their communities.

In addition to asking members their opinion about the impact of the community on their own and their organization’s performance, the survey asked members about other aspects of their community and their participation in it, such as members’ level of participation, years of experience in the field and clarity of community goals.

We knew that members would only be aware of factors related to their own engagement in the community. To supplement this, we also asked community leaders about characteristics of communities that could be a significant contributor to performance, but that might not be clearly visible to members, such as the size of the community, the amount of funding the organization provides for face-to-face events, the time the leader spends on the community and the level of expectations key sponsors hold for the communities.

In total, the community member and leader surveys collected data on over 50 potential factors that could influence community impact on individual and organizational performance. This information fell into the following overall categories:

- **CoP demographics**: CoP size and geographic reach (for example, whether regional or global).
- **CoP alignment/integration with business**: CoP sponsorship, CoP governance and CoP goals.
- **CoP roles & skills**: CoP roles, CoP training.
- **CoP activities & participation**: Frequency of participation, type of communication and participation.
- **CoP resources & support**: Level/type of resources and support provided to CoP by organization (for example, IT, events and financial support).

These were all factors that previous qualitative research led us to suspect were likely to influence individual performance. We then used member and leader data on characteristics of communities to perform both correlation and multiple linear regression analysis. From this analysis, we were able to identify nine specific factors that contribute to a community’s ability to contribute to individual and organizational performance.

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**Case study: Measuring community progress at ConocoPhillips**

Energy company ConocoPhillips has found that measuring communities’ development is complex but very valuable. Its communities (called Networks of Excellence or NoEs) participate in regular (annual and semi-annual) health checks, which identify the NoE’s overall health against critical success factors that the company has identified.

These factors include:

- leadership & sponsorship;
- clear business case;
- adequate resources;
- clear deliverables;
- development of trusted relationships;
- a transfer process;
- supporting technology;
- motivation;
- recognition and reward; and
- network measurement.

The NoEs are rated against a maturity scale, which identifies whether the network is operating at a beginning, developing or mature stage. Expectations for NoE performance are calibrated by this scale. NoEs also identify their progress toward their improvement goals with red, yellow, green dashboard indicators.

Together, these tools help the community and its sponsor to see clearly and regularly how it is progressing. The outcome of a Network “health check” is a series of recommendations from the KM team, which frequently include actions other NoEs are successfully implementing. Health check results are also shared with functional leaders, allowing full transparency of results.
The nine factors were:
1. Significant funding for face-to-face events.
2. CoP activities addressing business issues.
3. CoP leaders receiving training in community leadership.
4. Sponsors with high levels of expectations.
5. Members engaged in developing good practice.
6. CoPs improving the usefulness of IT tools provided.
7. Clearly stated goals.
8. CoPs solving employees’ daily work challenges.
9. Leaders with sufficient time to perform the role.

(Readers should note that, while it was expected that there would be a significant difference between the factors that impact individual and organizational performance, this was not the case.)

We recognize that these nine key factors have been identified in one of the authors previous qualitative research. However, the research provides the first quantitative basis for arguing that these same nine factors apply to high performing communities, regardless of the community’s size, structure, or organizational department.

Furthermore, this data shows which factors are of greatest importance. By far the strongest predictor for high performance is the level of funding provided for face-to-face events. The other factors with the greatest impact on CoP contribution to both individual and organizational performance (as measured by the tool) are the extent to which CoP activities address business issues, the level of provision for CoP leader training and the level of sponsor expectation.

Put simply, CoPs that score highly on these factors – in the eyes of their leaders and members – also score highly in the CoP Benchmark League Table. This league table has been validated as an effective measure of the contribution a CoP makes to individual and organizational performance.

The implication for organizations are obvious: invest resources on those key factors, or expect to have low performing CoPs.

This benchmarking process has allowed us to assert, based on quantitative evidence, where organizations and their CoP leaders should invest time and money if they are looking to improve community performance.

**Next steps for Phase 2 of the research**

Phase 1 of our research provided us with a general understanding of the overall influence of the key factors that seem to impact community performance. However, we suspect that there are also significant differences between industries, in respect of which factors influence that performance.

**“THE IMPLICATION FOR ORGANIZATIONS IS OBVIOUS: INVEST RESOURCES ON THE KEY FACTORS IDENTIFIED, OR EXPECT TO HAVE LOW-PERFORMING COMMUNITIES OF PRACTICE.”**

**Examples of value derived from high-performing CoPs**

In order to corroborate the findings from the CoP Benchmark League Table, we asked CoP leaders and members to provide specific examples of the value derived from their CoP.

The examples given were mapped to the CoP’s place on the Benchmark League Table. CoPs at the top of the performance table provided significantly more examples of value derived.

The below quotes provide specific examples of value that CoPs top quartile add to their organization.

**Winning new work and keeping existing customers happy**

“The knowledge and expertise within the community has helped the company to secure both new work and repeat work. For example, it played its part in securing five-year work programs with Client X and Client Y.”

“The CoP has contributed directly to over $600 million in new work this year.”

“Comments from various areas of the business have indicated much improved levels of customer satisfaction around delivery of specific projects, largely attributable to standard internal processes and increased skills.”

**Saving time and money**

“The CoP was used as a platform to gather info on X Business Unit operating experiences, shaving $13-15 million from topside costs.”

“[The CoP] provides a successful query resolution service with 80 percent of questioners assisted within one working day – with 4 minutes as the fastest response time to date.”

**Attracting and Retaining Talent**

“Feedback confirmed [CoP] involvement has been the reason for staff retention for some of the staff in the community.”

“Our groups have seen a significant benefit in the recruiting area. Other firms do not have a group similar to ours and it is becoming a benefit to us.”

“They [CoPs] are a major reason I am still at the company.”
“PHASE 2 OF THE STUDY WILL EXPLORE THE DIMENSION OF COMMUNITY DEVELOPMENT AND PROVIDE MORE ROBUST ANALYSIS OF THE FACTORS THAT INFLUENCE COMMUNITY PERFORMANCE.”

For that reason, Phase 2 of the study will explore this dimension of community development and provide more robust analysis of the factors that influence community performance. At the time of writing, this is already underway and the aim is to expand the number of CoPs and organizations involved, as well as provide much richer qualitative insights to back up the quantitative data. Indeed, the authors encountered a number of issues and challenges in Phase 1 that Phase 2 aims to specifically address:

- Sector usage: Phase 1 of the study involved only private sector organizations. The tool, as it exists, has been validated across many different sectors in the private sector, but not used beyond this sector. The research team has since piloted an adapted version with a global NGO and is currently testing a version within the UK public sector, in the field of healthcare.

- Different types of communities: Developing a better understanding of the different types of communities that exist (for example, online only, or inter-organizational) will be a key focus for Phase 2.

- Sample size: Though we are confident the key CoP factors that predict performance will still exist in a larger sample, some other key factors may also emerge. Phase 2 seeks to engage over 100 CoPs, providing a more reliable data set on which to base assertions.

- Response rate: In some cases, the response rate for CoPs fell below an acceptable percentage of the actual sample. Setting a minimum response rate for figures to be considered reliable will be a requirement in the Phase 2.

- Sponsor and senior management corroboration: The value and contribution of CoPs in Phase 1 was based solely on the views of CoP leaders and CoP members and was not corroborated with senior management. This is a key focus for Phase 2.

- Lack of rich insights to key factors: This was a predominantly quantitative study, with little focus on developing a deeper understanding of the key factors and how to improve execution of them. Phase 2 of the study has already conducted over 35 interviews and focus groups (with more planned), in order to gather these richer insights.

### Towards a standard CoP Benchmarking tool

The continuing work in Phase 2 is opening the way for wider scale benchmarking of CoPs within and across industry sectors. It also supports a deeper exploration of the key CoP factors that improve performance.

The more the CoP Benchmarking Tool can be used, developed and refined with different communities across different sectors, the more quantitative data we can gather on performance of different types of CoPs across different sectors. This could be used by organizations and CoPs across many different sectors, perhaps even providing sector-based CoP benchmarking.

Following this up with qualitative research, we will be able to gather richer insights into the key factors that impact on performance within and across sectors. Collectively, this information and knowledge will provide sponsors, CoP coordinators, leaders and members with the knowledge and tools they require to improve the contribution CoPs can make to individual and organizational performance.

Already, the research has had a big impact on many participants. “The KIN study was critical to identifying what Deloitte was doing right in CoP management as well as where improvements
could be made,” says Josh LeFebvre, KM and learning manager at Deloitte. “Participation lent great credibility internally to CoP initiatives and aided in getting them off the ground in our organization.”

The authors believe that any KM managers or CoP leaders interested in improving the contribution their CoPs make to wider organizational performance would benefit greatly from using this tool.

If you are interested in learning more about using the CoP Benchmarking Tool, please contact the authors. Organizations that would like to be involved in Phase 2 of the study should contact Julianne Schwarz at Warwick Business School: julianne.schwarz@wbs.ac.uk

References

ConocoPhillips: Addressing business issues and expectations

At ConocoPhillips, communities called Networks of Excellence (NoEs) report into the business functions responsible for stewarding improvements in their area.

Early in the development of NoEs, this was not the case, but as they and the corresponding Functional Excellence Teams have developed, they have become much more integrated.

For example, when the company found it was losing thousands of barrels of oil a day in well operations, it formed a well optimization NoE, identified potential members and the expertise needed and helped them identify and achieve their business goals, tackling a key business challenge.

Effective governance of NoEs is achieved by linking network goals back to business goals through a cascading goals structure from overall business goals to business unit goals to Functional Excellence teams.

The Functional Excellence teams are staffed by between eight and ten senior executives and have aggressive, measurable goals, such as reducing the number of unrecovered barrels of oil.

Each NoE, in turn, owns part of the overall improvement goal and tracks its progress toward achieving it. The NoEs are a key mechanism through which the Functional Excellence Teams achieve their improvement goals.

The KM group puts together a report of data on the NoEs and these Functional Excellence teams review all NoEs in their business area.

Senior management is very engaged in the whole NoE initiative. Knowledge sharing is incorporated into presentations in many high-level meetings. NoE meetings are typically attended by at least one vice president and the company newsletter deliberately features knowledge-sharing success stories. Business units have begun writing knowledge-sharing into business unit goals, such as aiming to have 50 percent of technical staff participating in NoEs.