Knowledge & Innovation Network

Communities of Practice (CoP) Benchmarking Report

Using CoPs to improve individual and organisational performance

Full Report
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Statement of Purpose

This report is intended to:

- help Chief Knowledge Officers (CKO’s), Communities of Practice (CoP) Co-ordinators and others make strategy and investment decisions regarding CoP programmes
- provide CKO’s and CoP Co-ordinators with evidence to help senior management understand how CoPs can create tangible organisational performance improvement

If you would like to know more about the project and follow-on research or provide feedback please contact harry.scarbrough@wbs.ac.uk.

Accompanying Reports

Other Reports available through KIN include:

- Guidelines for Good CoP Practice
- Innovative Practices in CoPs

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Knowledge & Innovation Network

The Knowledge & Innovation Network (KIN) is part of the IKON Research Group (http://users.wbs.ac.uk/group/ikon) at Warwick Business School (www.wbs.ac.uk).

KIN is an inter-organisational network of practitioners, researchers and world leading experts collaborating on the strategic, behavioural and organisational aspects of knowledge management and innovation.

KIN Aims to:

- create new insights on knowledge management issues through research into practice
- help create value for member organisations through expert advice and good practice
- promote, foster and support collaboration between practitioners, researchers & experts

For more information visit our website: www.ki-network.org
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Executive Summary

Communities of Practice (CoPs) have become increasingly recognised as an important mechanism to reduce time to solve problems, improve quality of decision-making, deepen organisational expertise and increase organisational learning. Arguably they are now the primary mechanism for moving knowledge and learning across traditional organisational boundaries. This has no doubt arisen from a growing need for today’s organisations to better equip themselves for the fast changing global environment they operate in.

Much has been written about CoP technology, the role CoPs play in learning and the importance of leadership and trust in maintaining healthy communities. Less has been written about the impact of CoPs on performance. What has been done is largely based on qualitative case studies. Case studies provide rich examples, but do not offer a quantitative evidence base to identify CoP factors that increase individual and organisational performance. As a result, CoP Programme Co-ordinators and Chief Knowledge Officers are still looking for ‘hard evidence’ to link CoPs and individual and organisational performance.

This is exactly what KIN’s study set out to do: provide hard evidence by benchmarking the impact of CoPs on performance. We measured this impact by asking community members the extent to which participating in a CoP improved their own individual performance, as well as that of their organisation (i.e. team, department or business unit).

This report contains many specific examples of how CoPs have improved performance. Examples range from helping to win work worth $600m to knowledge from a CoP reducing the cost of a specific process by $13-15m. However, to have a consistent measure across CoPs, organisations and industries, we based our analysis on community members’ assessment of their community’s impact on both individual and organisational performance. We also measured the extent to which CoPs increased individual and organisational learning and knowledge sharing, as well as personal motivation and commitment.

Our findings are based on what we believe to be the biggest CoP Benchmarking Survey ever undertaken. We received 1286 responses from CoP members in 52 CoPs across 10 organisations. We rated the impact of CoPs on a 1-5 scale. A huge variance was found between participating CoPs’ impact on performance. The highest performing CoP scored 4.31 out of 5.00. The lowest scored 1.81 out of 5.00.

Our preliminary analysis identifies ten factors that increase communities’ impact on performance at both individual and organisational levels. These ten factors provide direction on where organisations and CoP leaders should be investing time and money:

1. Provide significant funding for face-to-face events
2. Ensure community activities address business issues
3. Provide CoP leader training
4. Ensure CoP leaders are given sufficient time for their role
5. Ensure high levels of sponsor expectation
6. Engage members in developing good practice
7. Improve the usefulness of Tools provided
8. Ensure there are clearly stated goals
9. Promote CoPs ability to help employee’s solve daily work challenges
Our experience with previous anecdotal research suggested these factors are the sorts of things that help sustain communities. However, previously we had no objective data to demonstrate a correlation between them and the impact communities have on individual and organisational performance.

Some of these factors, such as the importance of funding face-to-face events or providing training for leaders/facilitators, have been truisms for communities for some time. However, many organisations still do not provide this support. Our research clearly demonstrates that improving execution of these factors supports improved performance. Conversely, for those who don’t, performance suffers.

While this data allows us to make better recommendations than ever before on where to invest to get the most value from communities of practice, we have to suggest a word of caution. Given the wide variability in community performance, our preliminarily sample of 52 communities provides a basis to clearly identify the impact of some of these factors. However, it is too small to make conclusive assertions about all the key factors. While we are confident the factors we identified as key predictors of performance will remain in a larger sample, other factors may emerge as stronger predictors of performance.

For those key factors that do stand out as strong predictors of performance, we are confident that investment in these areas will help ensure an immediate improvement in the contribution of CoPs to individual and organisational performance. These key factors are:

1. Provide significant funding for face-to-face events
2. Ensure community activities address business issues
3. Provide CoP leader training
4. Ensure high levels of sponsor expectation

In addition to these findings, the study has created a tool to benchmark the impact that CoPs have on individual and organisational performance. This is a major step forward in helping CoP Programme Co-ordinators and Chief Knowledge Officers to engage senior management in the role CoPs can play in organisational performance improvement.

This paves the way for evidence based investment decisions to be made. However, to more rigorously identify all key CoP factors that drive performance and provide CKO’s and CoP Program Co-ordinators with more specific detail on the ‘how to’ improve CoP execution to improve organisational performance, we’d like to do more.

We’d like to increase the sample for Phase 2 to around 150 CoPs, include CoP Co-ordinators, develop industry specific benchmarks and better understand differences between different ‘types’ of CoPs.

If you find the preliminary results contained in this report useful, would like to know more or would like to be involved in the next phase, please contact douglas.archibald@wbs.ac.uk.
Introduction

There is a growing body of research about Communities of Practice (CoPs) and their increasingly important role in supporting learning and knowledge sharing in today’s 21st Century organisations (Seely-Brown, Duiguid, 1991; McDermott, 1999; Wenger; 2002; Snyder, Wenger, Briggs, 2004).

Indeed, Communities of Practice could be seen as the ‘killer application’ in the Knowledge Management (KM) whirlwind that developed towards the end of the 20th Century. While much of the gusto promised from vendor led, KM technology solutions have failed to deliver tangible results improving performance, CoPs have emerged – if not unscathed – with a lot of credit.

There are many reasons for KM failures. Knowledge management strategies were often poorly tied to business goals. The focus on technology often assumed that staff would create new documents or metadata where there had been none. KM practitioners often assumed people would take the time to collaborate on their own time. All too often poor change and stakeholder management limited good ‘solutions’.

However, Communities of Practice are one of the few approaches that have emerged with many clear examples of success. Arguably one of the key reasons is that they were not part of yet another ‘big change’ programme of increasingly global organisations. From the early days of their emergence in such organisations, communities have tapped the natural curiosity of people to learn about each other’s work and share their insights with peers. They also provided the rich background context in which other people’s knowledge could be understood. Early research on how to develop communities in business (Wenger, McDermott, Snyder, 2002) suggested communities of practice are natural, informal, emerging structures that need the right amount attention and support to survive in a corporate environment, but that they did not need a tremendous financial investment.

Initial research by KIN (see Appendix B1) suggested that while Communities of Practice clearly stood out as the most useful mechanism to support wider organisational learning, there was significant variation in the results achieved. Some community efforts failed to deliver positive results. This variation can in a large part been due to a poor understanding of what makes communities healthy ... and what kills them.

However, when executed properly CoPs are a mechanism through which learning and knowledge can flow across organisational boundaries, can provide staff with insights they never would have developed on their own, and can increase the speed, depth and quality of decisions and innovations.

So what can the research tell us about how to support CoPs for improved performance?

While research on CoPs has looked at performance, this has largely been through qualitative case studies. Little has been done using quantitative evidence to identify the factors that distinguish communities that add value from those that don’t.

KIN’s CoP Benchmarking study therefore attempts to fills this gap. It has four basic objectives:
1. Explore the different types of CoPs that exist
2. Benchmark the performance of these CoPs
3. Develop greater understanding of the variables that predict improved performance
4. Consider the implications for practice

Initial findings of this study suggest there is significant variation in performance across different CoPs. However, more work needs to be done to clearly differentiate the different types of CoPs (e.g. role based CoPs versus issue based CoPs) and the implications for support and performance.

There is a growing recognition that the role of communities in organisations is evolving (McDermott, 2007). No longer are all communities bottom up movements left alone to create and share knowledge and learning independently of the organisation. While many of these informal, marginal CoPs do still exist, a new form of community is emerging that is more aligned and integrated to the organisations goals and challenges.

One thing is clear: increased alignment and integration with the business brings increased resources and support. However, with this increase in resources and support comes increased expectation.

So what impact is that having on overall motivation and commitment?

This is something we wanted to investigate since there is serious and legitimate concerns that as organisations increase the expectations they put on communities, they may also be starting to destroy the very fabric of that which makes them valuable. Initial findings from our study suggest this is not the case.

We have largely addressed the basic research questions from Phase 1 of our study noted above. Some more work is required in Phase 2 to look in more detail at the different types of CoPs that exist and their impact on performance. We’d also like to look further at additional questions. For example, how does performance compare across different industry sectors? We’d also like to go into a lot more detail on the ‘how to’ improve execution of the key factors emerged as key predictors of success.

These factors reflect a shift in the way many CoPs are supported and organised. High performing CoPs can be seen to be moving from the margins to the heart of organisations.

In the course of this study, we have developed a tool that organisations can use to benchmark the contribution of CoPs to organisational performance. This has allowed us to make strong inferences about where organisations should be investing time and money to improve the contribution CoP’s make to individual and organisational performance.
Introduction to Research

Key Questions addressed in this section

- How did the CoP Benchmarking research came about?
- What do we know about CoPs their contribution to organisational performance already? Where are the gaps?
- Can you ‘benchmark’ the contribution that CoPs have to individual and organisational performance?
- How have we gone about doing so?
- What was our Research Methodology and Design

Background and context to Research

The seeds of KIN’s Community of Practice Benchmarking work came from research into the different ways that organisations ‘Learn from Practice’. The reason for the initial focus here was a recognition that billions of $’s are spent every year on formal training and development and eLearning, whereas much of the evidence suggests (e.g. Orr et al (1999); Tushman and Scanlan (1981)) that most learning actually takes place day to day on the job. Despite this, we suspect the amount invested in trying to harness this day-to-day learning for the organisation’s benefit tends to be miniscule compared to the amount invested in formal training and development.

We are not suggesting severe cuts in investment for formal training and development programmes. This is something we recognise as important for many reasons, not least the social aspect of getting together with colleagues from other parts of the organisation. We simply wish to challenge the disproportionate amount of time and money given to this compared to other approaches that may actually deliver more impressive performance improvements i.e. deliver more value for money.

Based on the assumption that organisations could and should be doing more to harness practice or work based learning on the job KIN embarked on a research project to look at the various approaches to learning from practice, their relative success and the key determinants of their success.

The original Learning from Practice Project had following basic research objectives:

- What approaches are different firms employing around Learning from Practice?
- What is the relative success of these approaches?
- What are key determinants of success and failure?
- What are implications for good practice?

We looked at a number of various tools, techniques and mechanisms employed across organisations. A snap survey with key contacts along with focus groups suggested that some approaches were more useful than others at supporting organisational learning (see Appendix B for results).

The results suggested that in most organisations the relationship between usefulness and prevalence was often an inverse one! Even this small snap sample highlighted the need for research in this area. Unfortunately the complexity and amount of buy-in requirements across various stakeholders within each organisation meant that the original project scope was untenable. A re-think was required.
One learning from practice approach that stood out above others in supporting wider organisational learning (as opposed to individual learning) was Communities of Practice (CoPs). However, there was also a significant variation across organisations of the usefulness derived from CoPs. This suggested that while CoPs were indeed perhaps the key mechanism for organisational learning, the execution of CoP programmes and resulting performance outcomes varied widely and warranted more detailed analysis.

From this we honed the specific research objectives as per below:

- What approaches are different firms employing around Communities of Practice?
- What is the relative success of these approaches?
- What are key determinants of success?
- What are implications for good practice?

**What do we know already? Previous Research on CoPs**

Early research on Communities of Practice was defined by Lave and Wenger (1991), who argued that CoPs were "best understood as fluid social relations, enacted among a self selected group of participants that are best left alone, free from interference by organisational managers and policy makers" (Thompson, 2005, Pg 151).

A lot has changed in the 15 years since Lave and Wenger’s work.

While many of the ‘purer’ forms of traditional communities continue to exist, managers and policymakers (at least in the organisations we’ve surveyed) have not managed to avoid the temptation to ‘interfere’.

No doubt the desire to do so has arisen out of the impressive contribution CoPs can make to supporting wider organisational learning (Brown & Duguid, 1991), an increasingly important capability for organisations wishing to thrive and even survive in today’s fast changing environment.

As you might imagine from our findings, all communities involved in the study were to a greater or lesser extent on the radar of senior management. Indeed, based on current research (McDermott, 2007) and our report, high performing communities would appear to be the ones that are increasingly on the radar of and supported/sponsored by senior management. We suspect from initial findings the senior management intervention factor is a delicate balance between cause and effect relationship between CoPs and improved performance … though increasingly we are seeing it as cause. This is borne out by the findings in this interim report.

Researchers don’t seem to have been able to resist the temptation to get involved either. In these 15 years since Lave and Wenger’s seminal article, a plethora of research articles have been produced on Communities of Practice, a selection of which is highlighted on the following pages. Examples of CoP ‘hot topics’ not covered here include the importance of trust, the role of ICT, the importance of leadership, group dynamics and many more.

However, despite the volume, we couldn’t find many articles focussed on CoPs role in improving organisational performance.
Specifically we couldn’t find studies on CoPs and organisational performance that were:

(a) focussed on tangible performance outcomes at an individual and organisational level;
(b) quantitative based on a large sample of CoP members of across different organisations;
… that allow conclusions to be drawn on
(c) where to invest based on quantitative evidence

The relevant existing research in this area appears to fall into 4 main categories:

1. **CoPs versus traditional forms of organisation for learning and performance**
2. **Qualitative case studies on performance outcomes from CoP activities**
3. **Quantitative measurement on performance outcomes from CoP activities**
4. **CoP variables affecting performance outcomes based on quantitative analysis**

1. **CoPs versus traditional forms of organisation for learning and performance**
   The increasingly fast changing environment in which today’s organisations operate dictates the need for organisations to learn and apply that learning faster than ever. However, many organisations are still built to a large extent on the traditionally bureaucratic forms of organising that arose in the early 20th century. While command and control structures are important in terms of getting things done they are not well designed to support the flow of knowledge and learning. In fact, they serve reinforce traditional organisational boundaries that knowledge finds it difficult to flow across.

   A number of articles have argued for CoPs as providing a complementary way to help more traditional formal organisation structures to leverage knowledge for performance (Bowles & Gintis, 2002; Brown & Duguid, 1991; Dupouët, Yildizo-Ilu, 2006; McDermott, 1999; Snyder, Wenger, Briggs, 2004, Wenger; 2002). Indeed this was and apparently still is the main role of communities in most organisations.

2. **Qualitative case studies on performance outcomes from CoP activities**
   As a quick reminder, the two main purposes of the KIN CoP Benchmarking Report are to:
   
   a) help organisations, KM teams, CoP Co-ordinators make strategy and investment decisions regarding CoP programmes
   b) help those working with CoPs to engage senior management in constructive discussions, through better understanding of the role and importance of CoPs in driving performance improvement at individual and organisational level

   Arguably this is long overdue. Researchers don’t appear to have offered much in this regard to practitioners. Very little research seems to have been done that helps our target audience (i.e. CKO’s and CoP Program Co-ordinators) with either of the above points.
One of the exceptions is Millen, Fontaine & Muller (2002) who conducted a study of nine communities in seven firms sampled from a broad range of industry sectors. The aim of the research was to better understand the benefits and costs of communities of practice. This research recognises and directly addresses the issue that “promoting healthy collaboration in communities of practice takes management support at all levels and management, of course, wants and needs to comprehend what the firm gets for investment” (Millen, Fontaine & Muller (2002), Pg 69). They propose some useful models that can help towards developing a business case for community investment and ROI. However, compelling as their work is, their assertions are based on qualitative research.

Other good work has been done based on qualitative studies in an effort to link CoPs to performance in a manner that might help Chief Knowledge Officers to make investment decisions or engage senior management.

Snyder, Wenger, Briggs (2004) provide detailed case studies of 4 CoPs across government and the outcomes (e.g. faster learning) arising from CoP activities. They single out the role of leaders as being crucial in leveraging knowledge for performance.

McDermott (1999) described the complementary role of communities in supporting learning across teams and other organisational units and the outcome of communities (McDermott 2002). He pointed out that we can expect two levels of outcomes from communities. The first is the direct output of communities; increased personal knowledge (human capital), stronger relationships (social capital) and better access to data and documents (intellectual capital). The second level is the value individuals and organisations derive from those outputs; such as cost saving, improved performance, higher quality decision making, innovation, and better service to customers.

Lesser & Storck (2001) argued that – through increasing social capital – CoPs add value in the following ways: (1) decrease learning curve; (2) increase customer responsiveness; (3) reduce rework and prevent re-invention; (4) increase innovation. While useful, their qualitative study - based on 7 CoP case studies across 6 organisations - is at a fairly high level of detail in terms of performance.

Though the four areas of performance improvement would no doubt be compelling to management, they may not be conclusive enough, detailed enough or in the language that is required to convince senior managers of a step change in support provided to CoPs. Something like:

“Yeah, yeah, it all sounds good but show me the money … show me the figures.”

Sound familiar?

Another study that did provide some real life examples of tangible benefits was from the American Center for Productivity and Quality . They conducted an in depth study of 5 leading organisations (APQC, 2005) and their approach to Communities of Practice.

Their report provides many specific examples of how CoPs in these organisations are driving organisational performance improvement, some with some cited examples of hard line $ benefits. They provide a very rich understanding of how CoPs contribute to
organisational performance improvement and suggest a methodology for developing CoPs based on their findings.

However, again the assertions are based on a detailed qualitative study and do not provide any benchmark or assertions based on quantitative evidence on where organisations should be investing in CoPs to improve organisational performance.

3. Quantitative measurement on performance outcomes from CoP activities
The only significant attempt (that we have been able to find) on providing a quantitative assessment of how CoPs are supporting individual and organisational performance is provided by Verburg & Andriesson (2006). Their Community Assessment Toolkit (CAT) was tested on 271 members across 7 communities of practice.

The CAT enables comparisons between communities within and between organisations and is this sense is similar to the Benchmarking Tool we developed for our study.

However, most of Verburg & Andriesson’s (2006) tool is focussed more on the overall performance and dynamics of the CoP itself rather than the impact of the CoP activities on individual and, in particular, organisational performance.

While the impact of CoPs on performance is touched on in the ‘Results section’ of their work, the CAT would have been too long to get agreement from a large sample of organisations to send out to CoP members: we had to keep our CoP member survey to less than 10 minutes.

4. CoP variables affecting performance outcomes based on quantitative analysis
We are not aware of any studies that have based their research on quantitative performance outcomes, validated by a large sample of CoP members across CoPs and organisations, in order to look at other independent variables that may influence those outcomes.

Verburg & Andriesson (2006) made no assertions or inferences on the CoP factors affecting organisational performance outcomes based on statistical analysis of their findings.

We therefore could not find any quantitative studies that would allow us to make assertions about the specific CoP factors that help ensure improved individual or organisational performance.
Can you benchmark CoPs?

One of the first questions we asked ourselves was - can you benchmark CoPs?

We decided that you could because communities both within and across industries have similarities and insights gained from one are applicable – with some adjustment – to others. We also decided that the best way to benchmark was to ask CoP Members themselves.

Below are the actual survey questions (31 in total) that were sent out to members of the 52 CoPs about the extent to which the CoP helped:

- them Personally (Figure 1.1)
- their Team/Department/Business Unit (Figure 1.2)

Figure 1.3 shows the results from the survey with the 52 CoPs placed in a league table with the highest performing (CoP 1) at the top and lowest performing (CoP 52) at the bottom. The Figures on the following two pages should help you to understand how we went about ‘benchmarking CoPs. Pages 15-16 provide supporting explanation.
Aggregated Benchmark Measures: Organisational (Team/Department/Business Unit)

Team/Dept/BU Performance

Team/Dept/BU Learning & Knowledge Sharing

So what did all this produce? 52 CoPs completed the surveys. See below for results:

Colour Coded Benchmark Scores
Black/White: 3.75 – 5.00
Dark Grey: 3.00 – 3.75
Light Grey: 2.25 – 3.00
White: 1.00 – 2.25

5 Aggregated Benchmarks
Individual Performance
Individual Learning & K-Sharing
Individual: Motivation & Commitment
Team/Dept/BU: Performance
Team/Dept/BU: Learning & K-Sharing

For a larger scale version of the CoP Benchmark Table see Appendix E on Page 73

Benchmark League Table: CoP 1 – CoP 52
Comment on Benchmarking

As noted in the Previous Research on CoPs section, we identified a gap in the available literature on the need for quantitative evidence of the role of CoPs in supporting individual and organisational performance.

Some of the first questions that came to mind for us were:

- How can you benchmark individual and organisational performance?
- How can we be sure that this is a valid measure of performance?
- What scale should you use?
- What level of detail should you ‘benchmark’ at?
- Why is this useful for organisations?

Below you will find some more detail on what we considered.

*How can you benchmark individual and organisational performance?*

The key point here was that we wanted to focus on what was important to individuals and to organisations, not specifically what was important to CoPs. We are not measuring CoP performance per se. We are measuring the impact that CoPs have on individual and organisational performance. **This is a crucial point.**

The questions we developed reflect measures that we felt – following collaboration with participating organisations and their employees – were important measures in individual and organisational performance. Though performance is the focus of this report, we also developed measures on individual and organisational learning/knowledge sharing and individual motivation/commitment.

*How can we be sure that this is a valid measure of performance?*

We are as sure as we can be that this is a valid measure of performance. The statistical analysis of the results across all organisations suggests that the tool is valid and reliable.

However, like any survey involving human beings as the interpreter we are always at the vagaries of subjectivity to some degree. The benchmark scores across all CoPs are based on ‘the extent to which’ CoP members perceive the CoP to have helped them individually or helped their Team/Department or Business Unit. This – by definition – is a subjective measure. However, while there may be some bias in the results this should be spread equally across all organisations allowing for meaningful and valid comparisons. We feel it is as close as possible to a valid measure of how CoPs impact performance. Importantly, real life examples of value gained are used to support quantitative survey evidence.

*What scale should you use?*

A simple Likert 1-5 scale was employed, with 1 = To a great extent and 5 = To no extent.

*What level of detail should you ‘benchmark’ at?*

We have the data to provide benchmarks on all 31 questions we asked (see Figure 1.1 and 1.2 page 13). However, for simplicity we aggregated the data to two levels of detail:

- Overall Benchmark: average score for each CoP across all 31 questions
- Aggregated Benchmarks: average score for each CoP in the following:
  - Individual
    - Performance (6 questions)
    - Learning & Knowledge Sharing (8 questions)
    - Motivation/Commitment (5 questions)
  - Team/Department/BU
    - Performance (5 questions)
    - Learning & Knowledge Sharing (7 questions)

Scores can therefore be looked at 3 different levels of granularity (see Figure 1.3 on Pg 14):

Level 1: Total Average benchmark Score (Far right hand column in red):
Level 2: Aggregated Benchmark Score (Other 5 column headings in red)
Level 3: Benchmark Score for each Question (Columns in Main Body in white)

Why is this useful for organisations?
We feel that a benchmark tool, that ultimately creates a benchmark table, is key to engaging senior management in the importance of CoPs for org performance. It can be spliced and diced according to many various factors (e.g. Industry Benchmarks)

It also provides us with the basis for looking at the factors that most strongly predict performance, allowing investment decisions to be made based on evidence that help senior managers answer questions such as:

- How are we doing?
- How can we move up the performance league table?
- What is the link between where we are on this table and our overall organisational performance?
- What is the link between where we are on this table and our longer-term performance improvement goals?
- Have we got the right architecture and mechanisms in place to allow for organisational learning, best practice sharing and innovation for years to come?

We think it is as close as reasonably possible to providing a meaningful and measurable link between CoPs and individual/organisational performance.

However, we’d appreciate any feedback you have on how we can improve the tool: 
douglas.archibald@wbs.ac.uk
**Research Methodology and Design**

### Key Points

- Developed Benchmarking Survey based on initial findings from interviews with over 15 organisations participating in Innovative Practices in CoPs study
- Survey reviewed and developed with feedback from 4 participating organisations
- Two audience groups surveyed:
  - CoP Member Survey
  - CoP Leader Survey (from corresponding CoPs)
- Grounded Research with following basic research questions:
  - What approaches to CoPs are org’s employing?
  - What is the relative success of these? (Performance Benchmarking)
  - What are the key determinants for success?
  - What are the implications for Practice
- Dependent variables (from CoP Member Survey)
  - Individual Performance
  - Individual Learning and Knowledge sharing
  - Individual Motivation & Commitment
  - Organisational Performance
  - Organisational Learning and Knowledge sharing
- Independent variables (from both CoP Leader and CoP Member Survey)
- Various factors from CoP Leader and CoP Member Survey

KIN’s Community of Practice Research Project took place over a 12-month period from January 2006 – January 2007.

A summary of the high level timelines can be seen below:
**Developing the Survey**

The KIN CoP Project Team, guided by the Subject Matter Expert and a sponsoring organisation, developed the CoP Member Survey. It was further tested and developed in conjunction with 4 participating organisations. Questions and categories were based on what organisations might want to measure, coupled with other factors the team felt important. A major factor in finalising the CoP Member Survey was agreeing to keep it to under 10 minutes to complete.

The CoP Member Survey had three key parts:-
- Basic Demographic questions (e.g. how long have you been a member?)
- 31 benchmarking questions from which the CoP Benchmark was developed
- Other Questions relating to high level categories (e.g. CoP Roles and Skills)

In all cases the questions asked required only a scaled or yes/no response, though respondees were given the opportunity to provide further comment in free text.

The CoP Leader Survey was a mixture of quantitative questions requiring a scaled answer (e.g. to what extent? 1 = to no extent, 5 = to a great extent) and semi structured questions (e.g. Do you feel your Community is introducing new work habits into your organisation? If yes, what are they? Or; What different or additional skills do you think Community leaders need versus team leaders?). The CoP Leader survey was developed by the KIN team.

Aside from the actual Benchmarking aspect of the CoP Member Survey, both surveys were developed around high-level categories that It was predicted might have an impact on the contribution of CoPs to individual and organisational performance. They are:

- CoP Demographics
- CoP Governance and Alignment/Integration with Business
- CoP Roles and Skills
- CoP Activities and Participation
- CoP Support and Resources

**Study Sample**

The study was conducted across 52 Communities of Practice in 10 organisations. 1286 members across all 52 CoPs responded to the CoP Member Survey. 44 of the 52 CoP Leaders responded to the CoP Leader Survey.

**How did we select the sample?**

**Selecting industries**

We wanted to focus on specific industries for three main reasons:
1. Work towards developing Industry specific benchmarks
2. Some Industries/Sectors are more knowledge intensive than others. We wanted to focus on knowledge intensive industries that had mature CoPs/CoP Programmes.
3. Focus on organisations and industries that are global in scope.

Industry sectors we focussed on were:
- Oil & Gas (3 organisations)
- Technology Consulting & Professional Services (4 organisations)
- Aerospace & Defence (2 organisations)
- Engineering & Construction (1 organisation)
**Selecting organisations**

All organisations in the sample are leading global organisations. Many are recognised as world leading knowledge organisations (e.g. MAKE Award winners).

All had CoP programmes or a number of CoPs with some level of maturity. However, while some participated due to a recent drive to improve the support given to CoPs, some participated due to a recognition that they may have ‘taken their eye off the ball’ with regard to community support. The findings therefore provide a useful spread in terms of performance outcomes.

The spread of scores for CoPs across organisations suggests organisational conditions have a significant impact on performance. However, in some instances there was also significant variation between top and bottom performing CoPs within organisations, suggesting that CoP level factors are also at play in performance.

**Selecting CoPs**

The selection of CoPs for the study was left up to ‘CoP Co-ordinators’ (i.e. those with overview/responsibility for all CoPs in participating organisations).

No specific instructions were given on whether to pick high, medium or low performing CoPs. Some picked more mature/high performing CoPs, while some picked a mixture to provide comparative analysis.

**Selecting members to complete the survey**

In all but one organisation the survey was sent out to all potential members for completion.

**Survey Audiences**

Two audiences were surveyed to provide the data and information for this report:

**CoP Leaders:** 44 of the 52 leaders of the separate CoPs across 10 participating organisations completed a 30-45 min online CoP Leader survey

**CoP Members:** 1286 members across the above 52 communities completed a 10 minute online CoP Member survey

**How was the survey rolled out?**

The surveys were rolled out via a cascade e-mail approach from KIN CoP Project Team > CoP Co-ordinators > CoP Leaders > CoP Members.

A unique identifier URL was provided for each participating CoP. For example CoP1 in Organisation 2 would have had the following unique code:

CoP Leader Survey: [www.surveyurl.com/KINCoPSurvey/Org02CoPLeader01](http://www.surveyurl.com/KINCoPSurvey/Org02CoPLeader01)

CoP Member Survey: [www.surveyurl.com/KINCoPSurvey/Org02CoPMember01](http://www.surveyurl.com/KINCoPSurvey/Org02CoPMember01)

This allowed for easy comparison of results between members and leader data from specific communities.
**Response Rates**

Overall, response rates were fairly low compared to normal survey response rates. The average number of responses across all CoPs was 25 responses per community. This equates to an average response rate of approximately 7.5%. These are only approximate %’s based on answers given by CoP Leaders responses as to the size of the CoP.

The size of the response rate potentially has an effect on the validity of the findings. However, it should be recognised that the very nature of communities of practice mean that only a small percentage of those deemed to be in the overall audience are active participants. We should therefore have lower expectations on response rates.

In Phase 2 there will focus will be on improving response rates. One way is to have more reminders, gifts, etc to help boost the overall response rates. The second way is not to try and collect data from everyone but to have a random or stratified (function, location). Our strong preference is to keep the sample random.

Regardless, the priority is to do everything to ensure a standard approach across CoPs across organisations. For this reason our temptation is to have lower expectations but to work closely with all organisations to agree a standard way of helping to ensure as high a response rate as possible.

Two CoPs have not been included in the analysis due to the very low response rate. All others have remained in. In this survey, we have NOT taken those responses under 5%. In Phase 2 we would definitely set the lower limit to be at least 5% for all CoPs, probably higher in those CoPs with smaller membership.
Key Findings – Descriptive Statistics

All of the findings in this section come directly from the data and free text collected from the CoP Leader and CoP Member Surveys. It is from this base data that we applied statistical analysis techniques to identify key CoP factors that require investment in order to improve performance.

However, before considering what these factors are it may be useful to get more of an understanding of the Communities of Practice upon which we are basing our assertions … and the views of the leaders and members of these communities.

The graphs, tables and quotes on the following pages will help you get a better understanding of the 52 CoPs surveyed and the people within them.

The subsections are separated into:

- CoP Demographics
- CoP Governance and Alignment/Integration with Business
- CoP Roles and Skills
- CoP Activities and Participation
- CoP Support and Resources
- CoP Other: Barriers and Knowledge Retention

CoP Demographics
The basic make up of the CoPs (e.g. size, geographic spread, member make-up.)

CoP Governance and Alignment/Integration with Business
The extent to which the CoP is aligned to the business, the purpose and goals of the CoP, how this is determined and the level of senior management expectation.

CoP Roles and Skills
The various roles associated with the CoPs and the extent to which they are rewarded or recognised. Focussing particularly on leader role.

CoP Activities and Participation
Levels and focus of participation by members. What do members do? How often?

CoP Support and Resources
To what extent is the CoP supported by the organisation (e.g. funding for various things, senior management support, provision of tools and training.)

CoP Other: Barriers and Knowledge Retention
We also wanted to look at other issues, which don’t necessarily fall into neat categories. Interesting findings were around barriers to success and knowledge loss.

Note: on interpreting results about the factors affecting performance

**Predictor** = we can be sure this factor is a predictor of improved performance.

**Correlation** = there is an association with performance but we cannot be sure if this factor causes improved performance or is as a result of improved performance.
CoP Demographics

Summary Points

- Most CoPs were global in reach: approximately 75%.
- Average size of CoPs is 335 members, though a significant spread exists.
- Half of CoPs been active for 1-4 years.
- Most CoP members have been in the organisation for more than 5 years.
- Over 40% of CoPs had ‘sub- groups’ or ‘sub-communities’.
- Demographic Factors do NOT appear to strongly impact performance
  - e.g. there is no correlation between the size of CoP and performance.

This report is intended to help CKO’s/CoP Co-ordinators to make engage senior management in the important role CoPs can play in driving performance improvement. It is also intended to inform decisions about where to invest in CoPs in order to affect the greatest improvement.

The findings are based on evidence from surveying 52 CoPs in leading organisations around the globe. But what are the key features of these CoPs?

One of the first things we wanted to establish was the basic nature or type of communities: Big, small, global, national. We asked CoP Leaders and CoP Members basic demographic questions such as: CoP Members: how long have you been in community CoP Leaders: how big? Global? Following is a selection of results …

Most of the CoPs surveyed were global in nature. This reflected to a large extent the global nature of all the organisations in our study.

We did not analyse the relationship between proximity of members and performance, though this is something that could be done in Phase 2.

There was a significant spread in terms of the size of CoPs in our survey.

However, the size of the CoP did not seem to have any significant correlation with performance.
Almost half the CoPs surveyed had sub-groups or sub-communities where members engaged at a greater level of detail than the overall domain area.

Three quarters of those CoPs that had sub-groups or communities had less than five.

However, two CoPs had 20-30 subgroups and one had over 30.

One in ten CoPs have been active for less than a year. A quarter has been active for 1-2 years and a further quarter for 2-4 years.

One in ten have been active for more than ten years.

How long have members been in the organisation?
Almost 40% of CoP members have been in the organisation for over 10 years, 20% for 5-10 years, while almost 30% have been in the organisation for 3 years or less.

While this may reflect the overall demographic of the workforce it suggests an opportunity to involve new hires in CoPs to learn from experienced employees.
Comparing the Top 10 and Bottom 10 CoPs
A quick look at the difference on demographic factors between the Top 10 and Bottom 10 performing CoPs does suggest a link between these factors and performance. However, while there are some correlations (see Appendix B2), they are not strong enough to suggest a causal link between them.

Though this graph shows that the average size of the Top 10 performing Cops is significantly greater than the average size of the bottom 10 performing CoPs, there is no statistically significant correlation between size and performance.

Similarly, there is also a significant difference between the top 10 and bottom 10 based on how long they have been active for.

However, again there is no statistically significant correlation linking how long the CoP has been active and performance.

One factor, which does seem to have a significant impact on performance, is the length of time (tenure) that members have been part of the CoP.

Indeed, average length of tenure in the CoP is a strong predictor of individual performance and also a predictor of team/department/BU performance.

These examples serve to show that ‘descriptive statistics’ can be misleading and don’t always tell the whole story on factors affecting performance.
CoP Governance & Alignment with Business

Summary Points

- There is significant variation between CoPs on the level of senior management and sponsor expectation.
- Level of expectation is a strong predictor of performance.
- 92% of CoPs have a stated purpose
- 50% have clear goals and deliverables
- Leaders from the various CoPs have described in detail the governance procedures around setting and agreeing the purpose and goals of the CoP, many of which are closely aligned to those of the business
- From the data we have, the extent to which they focus on business issues (e.g. more so than roles & skills) is a predictor of performance.
- However, it is clear from what we did gather that different communities are focussed ‘to a greater or lesser extent’ on different things.

Increasingly the evidence suggests that many of the high performing communities (McDermott, 2007; APQC, 2005) are characterised by more formal governance procedures that are more closely aligned with business goals and priorities.

We therefore wanted to learn more about the varying extents to which CoPs were aligned and integrated with the ‘formal’ organisation i.e. their governance, relative focus, purpose, how goals were set and agreed and generally the extent to which they worked with the organisation in pursuit of shared goals.

We found that many of the CoPs in our survey benefit from increased Sponsor expectations and increased senior management support, with both correlating highly with improved performance. Indeed, the level of Sponsor/Senior Management expectation is also strong predictor of performance improvement.

![Graph showing level of expectation from sponsors or senior management](image)

There was a significant spread in terms of the level of expectation from sponsors or senior management.

This is a strong predictor of performance.

In an effort to get a better understanding of the different types of CoPs we asked leaders about the extent to which the CoP benefits the organisation on a number of areas e.g. roles/skills, specific business issues. The extent to which the CoP addresses specific issues is a strong predictor of performance.

![Graph showing extent of CoP benefits](image)
Though the previous graph was useful in finding out the different ‘relative’ areas of focus of the various CoPs it can only tell part of the picture. We intend to do more work in Phase 2 to build on this and the relationship between different types of CoPs with different types of focus and different performance outcomes.

This graph shows suggests where the CoP is focussed appears to have little when looking at performance overall. This doesn’t tell story as extent which CoP’s address business issues is in fact a strong predictor of performance.

However, a closer investigation of relationship between relative focus areas of CoPs (developing these categories) and aggregate benchmarks (i.e. organisational performance; individual learning & knowledge sharing) would be useful.

Quotes on Governance & Alignment with Business
Based on leader findings, 92% of CoPs has a stated purpose and 50% had stated goals and deliverables. Many were increasingly working with the business to align their goals:

“We have worked hard to align the network goals with the operational goals. In fact, the network’s goals have to be based on operational goals. If not, resources will not be allocated to the network.”

“Having a Community Performance Contract (goals) with Org X Management has assisted the Community to demonstrate its delivery on a yearly basis and therefore acceptance and support of the Community by the Management has been effortless.”

“In order to continue to deliver value, the networks must be driven into the operational community quite visibly. There must be a perception in operational units that the community can assist not only with value delivery but value capture as well.”

“X Network is strong functional network allowing delivery of BU goals across borders.”

“Ours is a very issue based community, designed to prep our practitioners with up to date knowledge/information impacting this industry sub-segment prior to going to market.”
CoP Roles and Skills

Summary Points

- Leader/Facilitator role is a key factor affecting performance
- Training provision for Leader/Facilitator strongly predicts performance
- Time spent by Leaders/facilitators is highly correlated with performance
- Average tenure in the organisation for CoP Leaders/Facilitators is 16 years
- Average experience of leader/facilitator in the CoP subject area is 14.5 years
- Average time leaders/facilitators spend in their role is 0.85 days a week.
- Apart from time spent, there is little difference between leaders of top and bottom 10 on what they spend their time on (e.g. networking with members).
- Reward & Recognition for leaders is becoming increasingly prevalent.
- Examples of reward & recognition for members are emerging.

Much of the existing research points to the importance of the role of leaders in performance (Wenger, Snyder & Briggs, 2002). Our research also backs this up. The extent to which training is provided for leaders/facilitators is a strong predictor of improved performance. Time spent by leaders is also correlated with performance but – based on our sample - is a less strong predictor.

However, to rely solely on leaders would be wrong. The danger is organisations think a well-trained leader, with time provided to perform their role will ensure performance. It will go a long way but to make the contributions to performance of those CoPs at the top of the Benchmark table, more is required. Indeed, other factors affect performance more strongly such as funding for events and the extent to which the CoP addresses specific business issues. Though these factors mentioned are not independent of leadership capabilities, organisations should take heed.

One challenge is what some CoPs call Facilitators others call leaders. Other CoPs have both Leaders and facilitators. This graph – with the help of some basic guidance on roles – shows the extent to which a number of roles are recognised in participating organisations.

```
Which of the following are recognized roles within the Community?

- Business Sponsor (from Business Unit, provides sponsorship)
- Community of Practice Leader (Power & Influence)
- Community of Practice Facilitator (Operational, Day to day management)
- Technology Support/Webmaster
- Content Editor (Searches for, identifies, and aggregates content)
- Member
- Other
```

Unless otherwise stated, for the rest of this report we will use the terms Facilitator/Leader as one and the same thing. There are clearly potential issues with this. The key point is the
overall contribution that either a Leader/Facilitator team or as single person performing both a Leader/facilitator role needs to make is the same. As noted in the above graph they need the power and influence to be able to drive the CoP forward to achieve its goals (leader). They will also need to be able to maintain the day-to-day operations of the CoP (facilitator). In some cases it will be the same person. In others it will be different people.

Almost half the leaders surveyed spend ‘up to half a day per week’. Over a quarter spend between half a day and a day.

Average time spent as a leader is 0.85 days. Only one leader was full-time. One spent more than 4 days per week.

Time spent as leader/facilitator is strongly correlated with performance. This graph shows a significant difference between time spent by leaders of top 10 performing CoPs compared to the bottom 10.

However, in our sample it was not a statistically significant predictor of performance. It was, however, a predictor of member’s motivation and commitment.

Also of interest was what leaders spent their time on.

On average just over a third of their time was spent networking with members, just over a quarter maintaining and developing the knowledge base and discussion forums, with one fifth spent organising and running events and under 10% for both networking with sponsors and ‘other’ things.

It occurred to us that while time spent was clearly a factor, what time was spent on might be a factor in performance. Is there a difference between top and bottom performing CoPs?
We therefore look at how leaders of the various CoPs apportioned their time and how this relates to performance. The chart below shows the CoP Benchmark league table from right to left, with the bar charts showing where each leader spent their time spent as a leader.

A comparison of the average time spent between leaders of the top 10 and bottom 10 performing CoPs backs this up with little difference. However, leaders of high performing CoPs do seem to spend relatively more time maintaining the community site/knowledge base and slightly less time networking with members.

"A community is led through respect built up over time and relies heavily on relationships. The activity set is unlikely to change a lot over time, although it's importance to the business may. Influencing is a key skill, as a community can be a large number of people."

However, this only shows relative time spent. The amount of time spent is strongly correlated with performance and the chart provides a snapshot visual representation on the relationship between how much time is spent and where. Again, the high performing CoPs are on the left of the table with the low performing CoPs on the right. This simple visual analysis suggests by far the most important factor is time spent. However, it also suggests
variations in performance between leaders that spend the same time (e.g. 0.75 days) are
down to how you do things not what you do. The statistical evidence backs this up in that
training for leaders/facilitators is one of the four strongest predictors of performance overall.

How do leaders find sufficient time to commit to their role?
Some leaders have time allocated; others do it out of hours ‘for the love of the job’.

“My role is full time.”

“As a senior Advisor in the company, I am allowed with a budget to spend up to 20% of my
time on what I believe is beneficial to the company.”

“Initially it was a more formal role, and time was allocated to it on a regular basis. This was
good for setting up the community and running with it. Lately, time is becoming scarce and
it is difficult to allocate time. It is soon time for me to hand over the reigns as leader.”

“I give up my personal time - in the evenings and on the weekends. The Leader has to
have passion and a true love for the community otherwise it would be difficult to give the
time necessary for the community. I love being a part of and leading the community. SO it
does not feel like a sacrifice but rather an important part of my job, and the legacy that I
leave to the company. I also feel like the leader must have an interest to serve others
because a lot of what I do is trying to better serve our members and the company.”

“It is defined to spend 10% of our time but most of the time I use my personal time such as
weekends or late night hours. It is my personal desire that makes me to dedicate my time.”

“Extremely difficult - especially in recent months.”
Reward & Recognition – leaders and members
We also wanted to look at the extent to which leader and member roles are rewarded or recognised e.g. through performance appraisal. Quotes from CoP Leaders below provide many examples of reward and recognition for leaders. There are also examples of recognition – and in some cases reward - for member participation in CoPs.

How is CoP Leader Participation Rewarded or Recognised?

“Part of my job requirements, thus is addressed as part of annual job review as well as monthly status meetings.”

“Through review against my objectives. One of which is the leadership of the CoP”

“Meeting group goals will result in additional annual compensation.”

“Award and recognition program in place to recognize participation, work effort and results”

“Performance review; 360-appraisal feedback.”

“Local office leaders give "thumbs-up"; Operation presidents give "thumbs-up"; I've gotten selected for leadership training as a result.”

“No current recognition system. May be recognised career opportunities.”

How is CoP Member Participation Rewarded or Recognised?

“Through peer recognition and enhanced reputation.”

“Verbal recognition. Gifts, trips to Leaders meetings.”

“No specific mechanism. Some opportunity to raise profile through presentation of work to colleagues and seniors.”

“Active involvement is rewarded with attendance at conferences and international meetings, spot bonuses and profiling in newsletters.”

“Identification of top contributors by SNA. Publication of success stories.”

“Probably not as well as it should be. I like to recognise the people who contribute resources and tools to the community via our newsletters.”

“There is no tangible reward - however members develop relationships with each other and the more they put in, the more people are willing to help them out in return”

“Meeting BU goals will result in additional annual compensation.“

“Reviewed in the annual performance review. We are currently developing ways for the Knowledge Base Leaders to feed back into the performance review process.”
CoP Support and Resources

Summary Points

- The evidence very strongly points to increase funding and support (e.g. training, useful tools) providing greater the performance levels.
- Actual amount of funding provided and the perception of general support from leaders are both strongly correlated with performance.
- Average funding for CoPs was $100,000. Many CoPs received no funding. Many others received between $250,000 - $500,000.
- In perception of leaders, while there is a significant difference in spend on events, training and expert help, the relative spend on IT tools between bottom 10 performing CoPs than in top 10 performing CoPs is the same.
- Training for leaders/facilitators and funding for events were two of the four highest predictors of performance in the study. Increase investment in these factors is likely to significantly increase the performance contribution of CoP to the organisation.
- The perception of leaders was that fairly good levels of support were provided on Tools and from KM teams. Next was support from senior management, followed by training. The ‘lowest score’ for general support was in the area of direct funding.

The extent to which CoPs are supported by the organisation is clearly a very strong predictor of performance.

The level of overall funding provided is significantly correlated with improved performance, as the graph comparing the average funding for top and bottom performing CoPs shows.

More specifically, funding for events and the amount of time leaders spend stand are key predictors of performance at both individual and organisational level. Also, the extent to which training is provided for leaders is a key predictor of performance.

When asked on the specific level of funding (rather than just support) was provided in each area it was around events, then salaries then expert knowledge/technology.

Provision of training for leaders/facilitators could be improved.

On average, CoP leaders seem to be happy with the extent of support provided around IT Tools and from KM teams. Senior Management and Training support is provided to a lesser extent.

Perhaps unsurprisingly, financial support provided is scored lowest by CoP leaders.
This comparison between the Top 10 and Bottom Ten Performing CoPs clearly shows the importance of funding in performance.

While the top 10 performing CoPs that delivered significant benefits were – on average – funded just over $200,000 each, the figure for the bottom 10 was $10,000.

As the old adage goes, you get what you pay for.

Statistical analysis shows that where the funding is provided it is a strong predictor of performance with funding for events being the strongest predictor for all variables and funding for leader time also being key.

This is shown in the graph comparing Top and Bottom Performing CoPs.

There is also a significant difference between the level of training provided to Leaders/facilitators in Top versus Bottom Performing CoPs.

However, across the board there appears to be more that could be done to improve training for all CoP leaders/Co-ordinators. This factor is a key predictor of performance at individual and organisational level.
Many CoP Leaders suggest senior management are not aware of the benefits CoPs can provide, often resulting in a lack of support. However, there is variation across organisations and industries …

“The whole topic is recognized by management but there is nor real commitment to invest in that area. It is always kind of a hobby and there are more people involves in creating excel sheets than working on real business problems.”

“The principle of Networks and CoPs is a good one but they become self fulfilling if care isn't taken and at risk of being a luxury we can afford with a high oil price. The test with all these things is if they stopped tomorrow how much would they missed and what tangible impact would their absence have on business performance other than offering comfort. There is a need to sharpen their objectives and recognise that for them to work strategically as well as tactically they need a structured full time resource to manage them with a professional look and feel - currently there is considerable variation.”

“Our corporate commitment is significant to this process and the value return to the organisation will be substantial. In the 10's of millions of dollars each year.”

<table>
<thead>
<tr>
<th>Comment: CoPs and the big bad organisation</th>
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<tbody>
<tr>
<td>Early proponents and researchers of CoPs suggested they were best left alone by the organisation. Later Wenger, McDermott and Snyder (2002) suggested that at least minimal financial support should be made available.</td>
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However, the evidence here suggests there is a clear predictive relationship between the level of funding and training provided and performance.

Perhaps the concerns of those advocating a low touch approach are that increasing organisational interventions – and with them expectations – could have lasting systematic damage to what actually makes CoPs successful at supporting learning and knowledge sharing across boundaries.

The difference between voluntary participation and knowledge sharing and co-option or co-ercion is subtle but significant. There are legitimate concerns that as CoPs are increasingly aligned and integrated with the ‘formal organisation' that it could begin to erode their health.

More needs to be done to look at the differences between high performing CoPs more closely aligned and integrated with the business and those at the other end of the continuum.

What are the differences in terms of motivation and commitment: e.g. to learning and knowledge sharing, to the CoP itself and to the organisation?

The early indicators here suggest that if anything it positively affects motivation and commitment – as measured by this survey.

Follow up interviews and focus groups would be required, however, to get a richer picture of the motivational implications for members in more and less formalised CoPs.
CoP Activities and Participation

Summary Points

- People are motivated to participate in CoPs for a number of reasons (e.g. keep up with developments in the field, expand their personal network)
- On average, most members' time is taken up searching for information and knowledge, closely followed by developing good practice and looking for/connecting up with others to solve a problem.
- The extent to which members spend their time on these activities is strongly correlated with individual and organisational performance.
- The extent to which members get involved in developing good practice is also a strong predictor of performance.
- The frequency with which members ask and answer questions of others is correlated with performance but not as strongly.
- In what ways and how often do CoP members interact? (Leaders view based on how often 'part or all' of the CoP come together in the following ways)
  - Discussion/Q&A Forums: 50 posts per month
  - Teleconference: 17 times per year
  - Webconference: 8 times per year
  - Video Conference: 5 times per year
  - Face to Face: 4 times per year

So far we have looked at the extent to which a number of high-level categories that may predict performance: Demographics (not much); Governance & Alignment with Organisation (quite a lot); Roles and Skills (alot, especially Leader); and Support and Resources (alot).

However, a better understanding what actual activities CoP members participate in is required to complete the picture. How regularly do members participate? In what ways? To what extent does this have an impact on performance?

Specifically, are they investing their valuable time effectively in order to positively influence:

- Individual performance
- Individual learning & knowledge sharing
- Individual motivation/commitment
- Team/Dept/BU performance
- Team/Dept/BU learning and knowledge sharing

... what types of participation affect what types of performance?

... and what more could organisations be doing to allow them enough time to participate and what can leaders be doing to help them use that time effectively?

The findings suggest that what members actually participate in and – to a lesser extent - the levels of participation are strongly correlated with performance. Indeed, the extent to which members participate in developing good practice is a strong predictor of both individual and organisational performance. Other factors more positively predict learning and knowledge sharing and motivation and commitment.
One major factor is the extent to which members feel they have time to participate in CoPs.

To what extent are you given time to participate in the CoP by your line manager?

Although time issues were identified as the key barrier to success by Leaders, on the whole CoP members feel they are given enough time to participate by line managers.

What is perhaps more interesting from an outcome/performance point of view is: what motivates members to get involved in CoPs; and what members are spend their time on.

Though these factors could be argued to be very similar it was felt important to make a distinction around motivation so a view could begin to be formed around CoPs and people’s motivation and commitment.

To what extent do you spend your time on Community activities on the following?

Members were to some extent motivated by all of the potential reasons we gave for participation. The lowest was Career development though there are some interesting quotes from members on this.

The evidence simply serves to validate why individual get involved in CoPs.

There was more variance when asked what they actually spent their time on….
Interestingly, the extent to which members attended an event is the only factor that doesn’t correlate with improved performance. All others do.

By far the strongest predictor of improved performance at both individual and organisational level is the extent to which members worked on developing good practice.

The evidence suggests that there is a reasonably large variation the factors around what members spend their time on, less so in terms of what motivates them.

Also, time spent in some areas provide bigger performance returns than others e.g. time spent looking for/connecting up with others to solve a problem provides more of a performance return than time spent looking for information and knowledge.

“Majority of my time that I can spend on the Network is used in the development of the [good practice] tools for the network and using them within the BU to assist in the shutdown planning processes for the different assets in the BU.”

“Participation in the community has made me aware that learning along with sharing has no bounds. Today it is not necessary to know all the things. Knowing where to get those from is knowledge.”

“Our Community of Practice is heavily focused around bi monthly reviews and exchange of information packs / experiences / lessons learnt through that session, rather than use of far more active and responsive communication mechanisms.”

“The number of IT tools is not as important as the quality and useability of the tools used. A few powerful tools combined with appropriate training enables our CoP to function very efficiently and effectively.”

“Monthly telecons and annual face to face meetings works ok.”

“Use of web seminars and recorded seminars very useful.”

“Org X’s 'PeopleFinder' tool is inadequate for its purpose - hence the low response to the 'Expertise Locator' question. If 'PeopleFinder' worked it would be a vital tool.”

“Social gatherings provide a great way of informally relaying what you’re really trying to say”
Key Points

- In leaders views, by far the main perceived barrier to CoP success is around time.
- Other barriers include organisational culture, organisational structure and the extent to which line managers give permission for members to participate.
- To what extent is threat of knowledge loss an issue for your community/organisation?
  - To a great extent: 27%
  - To a significant extent: 39%
  - To some extent: 15%
  - To a small extent: 10%
  - To no extent: 2%
- Percentage of organisations that don’t formally address this issue: 39%

Most of the survey was focussed on factors that we thought could – if executed effectively - have a positive impact on performance. We also wanted to ask CoP Leaders themselves what they felt the main barriers to CoPs achieving success in the future would be.

Barriers to Success

The results were stark – if unsurprising. Time strongly emerged as the main barrier to CoPs achieving their success. Though significant, time provided by line managers was seen as a barrier to a much lesser extent than general time constraints on themselves, something that supports member’s views. However, the issue of leader time lends further weight to the argument for leaders/facilitators being given more time to perform their role. They would say that but they evidence backs up the link between that and performance.

In addition to leaders time constraints and time given by line managers.

Organisational structure and organisational culture were also seen as fairly significant barriers.

“There is good feedback for all the community. Information has been used widely. The problem is enough time to participate in the system.”

While members generally appeared happy with the time they had to participate in CoPs a number voiced their concerns about the time they could commit to the CoPs:

“I recognize the value of this tool because it has truly helped me. Unfortunately I have not reciprocated to the degree that I could and should. Typically this is due to time constraints and it goes the "bottom of the pile" in lists of things to do.”
Knowledge Loss and Retaining Critical Knowledge

We also asked CoP Leaders what their organisation was doing about the issue of 'knowledge loss' or 'retaining critical knowledge' was in their organisation/community.

Firstly, as the graph below indicates, knowledge loss is an issue for almost all organisations. Indeed almost 2/3rds see it as an issue to a great or significant extent.

Some of the quotes from CoP Leaders below provide supporting detail on the challenges facing organisations in when those with business critical knowledge are due to leave:

“Key personnel are leaving who are the only people who completely know how to do a particular job.”

“Young, inexperienced people going into jobs where there is no support from more experienced or senior employees - every thing has to be re-learnt from scratch.”

“We have a lot of people who stay for 5 years and then leave just when they are ready to take on more responsibility. This is a huge problem. Our young professionals have no one to look directly up to b/c then have gone. We have a huge gap in the 5-15 year category.”

“There is a pervading perception within our organization that the core business is not important to management and therefore the technologists performing that work are an endangered species.”

“People hired during the oil boom of the late 70's and early 80's are now approaching retirement age. (The oilfield retires at around 55.) The boom and bust of the oilfield means that the age profile is quite spikey and the imminent mass retirement is known colloquially as the "big crew change".

“Most core members have been with the community since its inception in 1990. However, most are around 50. The big challenge is the crew change in the next 5 - 8 years.”

“Oilfield industry is facing a huge problem with recruiting younger employees because most graduates are going for predominantly IT companies.”
So what are you doing about it?
However, when asked what they were doing to address this issue almost two fifths of CoP Leaders said they don’t formally address the issue. Of those that did, the most popular (and thankfully most effective) way of transferring the knowledge was some form of mentoring programme to transfer the knowledge.

“...A colleague retired 3 years ago who had worked for the company in Pipeline Engineering for 40 years. I worked with him for 6 years prior to his retirement, trying to learn as much as I could. He & I are often used as an example of how to transfer knowledge, but in practice within the organisation I think we were a "one-off". I have heard of no similar knowledge transfer, although it is seen as important.”

“Age demographics are mid 50’s, capturing process knowledge and sharing is a key driver in the work of the network from a management perspective.”

“If all members regularly contributed to a Forum discussion this information would be archived and shared more easily. Time is usually the dominating factor for the higher-level experts. Some businesses are wholly revenue driven and therefore are not funded to spend time in knowledge sharing activities.”

“We ask all leaving members whether they would like to stay loosely connected with our network, and most would like to. Unfortunately, we haven't made good use of that connection yet.”

Given their unique position in the organisation as guardians of expert knowledge, communities are well positioned to play key role to play in mitigating against knowledge loss, which if not addressed soon, could become very costly for many organisations.

Following these findings, the Knowledge & Innovation Network, is due to conduct applied research into Knowledge Retention & Transition early in 2007. If you’d like to know more about what to do to help address this issue, please contact douglas.archibald@wbs.ac.uk
Value from CoPs

### Key Points

- Real life examples to back up the quantitative evidence from members on how CoPs are supporting individual and team/dept/bu performance
  - Win Work
  - Save Time
  - Reduce Costs
  - Attract and Retain Staff
  - Thought Leadership/Innovation
- Overall objective of study is to provide some quantitative basis for analysis that CoP Co-ordinators can take to senior management as evidence basis for investment
- However, without specific examples of how these 4.31 out of 5.00 scores translate into real business benefits management could question relevance. These stories (anonymously provided from CoP Leaders) provide qualitative back up to quantitative analysis.

As noted, one of the two the overall purposes of this report is to help CoP Co-ords to engage senior management into serious discussion about what investment is required in CoPs if they want to achieve the performance returns.

We have to therefore ensure ‘all bases are covered’ in terms of arguments/challenges that might come from senior management.

A familiar refrain might be:

“Yeah that all very well but how do I know that a high score correlates to real life success - ‘show me the money’”

The following pages offer some examples of how high performing communities in our survey have helped individuals and organisations to:

- Win work
- Keep customers happy
- Save time
- Save money
- Attract and retain talent

You might find them useful…
Value from CoPs

The following pages offer some examples of how high performing communities in our survey have helped individuals and organisations to:

- Win work
- Keep customers happy
- Save time
- Save money
- Attract and retain talent

You might find them useful in engaging senior management …

Winning Work & Improving Customer Satisfaction
A surprisingly large number of examples were given on how CoPs have either directly or indirectly contributed to winning new customers, winning specific pieces of work and helping to ensure high levels service for existing customers:

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

“The knowledge and expertise within the community has helped the company to secure both new work and repeat work e.g. it played its part in securing 5 year work programmes with Client X and Client Y”

“Anecdotally, our Community has demonstrated impact in providing needed documentation to win new business.”

“This so far has impressed in Country A and Country B - Market penetration.”

“Connects differing areas of the business pursuing the same business opportunity.”

“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.”

“It takes the concept of teamwork to another level - not just the local project team, but the rest of the community within the organisation. It breaks down the "hero" culture and improves confidence in front of the customer.”

This provides clear evidence on how high performing CoPs are directly contributing to winning new pieces of work, increasing market penetration and retaining key customers.
Saving Time and Money
The previous section showed the role CoPs can play in winning work and keeping customers happy through ensuring a high standard of quality. However, CoP’s also help save time and money by re-using knowledge and preventing re-invention of the wheel …

“$ $ $ $ $ 
“The ABC CoP was used as a platform to gather information on Co X operating experiences on ABC and to assure application of new technology and novel approaches to ABC. Outcome was an astounding success - shaving $13-15million from topsides costs.”

“The network has delivered over 10 million back to the company since last two years.”

“Cost Reduction and reduced lost production opportunities. No figures due confidentiality.”

“CoP core team has helped shutdown teams plan and execute successful shutdowns where in the past they have had difficulty meeting their targets and their commitment to management.”

“Improving the competence of users … they normally get information back within half an hour when they ask for help, which is fantastic.”

“Provides a successful query resolution service with 80% of questioners assisted within a working day with 4 minutes as the fastest response to date.”

Attracting and Retaining Staff
In an environment when most organisations are working hard to ‘win the war for talent’ and to hold on to their existing knowledge and expertise, CoPs can play a key role. Arguably at present organisations are not doing enough to take advantage of this opportunity …

“Attracting and Retaining Staff - 44 - © Knowledge & Innovation Network, Warwick Business School

“Young consultants get more quickly up to speed and become more motivated.”

“Our groups there 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.”

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

“They [CoPs] are a major reason I am still at my company”
Some CoPs support many key issues and aspects of performance e.g., winning new work, saving people time looking for information, retaining key staff. Indeed, single CoPs can be seen to create value in many different ways at once. In this regard, even investments such as $250,000 per year seem very small in comparison to the tangible value they create …

1) Provides a successful query resolution service with 80% of questioners assisted within a working day with 4 minutes as the fastest response to date.
2) Connects differing areas of the business pursuing same business opportunity.

1) Anecdotally, our Community has demonstrated impact in providing needed documentation to win new business;
2) We have used the CoP as an innovative means of creating a major and industry leading research report on the topic.

1) Helped in securing several new schemes
2) Projects influenced by more of our global experts
3) Papers and conference attendance proves the technological lead of the firm
4) Feedback confirmed that the [CoP] involvement has been the reason for staff retention for some of the staff in the community

… and this does not even begin to calculate the intangible values around human, social and intellectual capital the CoPs play a crucial role in maintaining.

Comment on taking the value/measurement piece forward

In order to provide CoP Co-ordinators and Chief Knowledge Officers with even more ammunition to take to senior management, in Phase 2 we look to do more to understand:

- How leaders and Co-ordinators measure health of CoPs
- How leaders and co-ordinators track actual value created by CoPs
- Which organisations provide sophisticated and reliable ways of tracking value form CoPs?
- How we can (e.g. through storytelling) provide more compelling examples of the value created (directly and indirectly) from CoP activities

If you are interested in taking part in Phase 2 please contact: douglas.archibald@wbs.ac.uk

So what do you need to be doing to ensure that your CoPs are contributing to individual and organisational performance in this way?

Based on the evidence we have identified nine key factors CoPs need to focus on to improve their contribution to performance as highlighted in the examples above…
Key Findings – Factors Affecting Performance

Statistical Analysis employed: Types and Analysis. How can we determine the key factors affecting performance?

**Dependent Variables:**
Firstly we looked at the ‘outcome’ variable, which we call the ‘dependent variable’. Aggregated Benchmark scores measure contribution of CoPs to the five ‘outcome’ categories below:

<table>
<thead>
<tr>
<th>Individual</th>
<th>Team/Department/BU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (6 questions)</td>
<td>Performance (8 questions)</td>
</tr>
<tr>
<td>Learning &amp; Knowledge Sharing (8 questions)</td>
<td>Learning &amp; Knowledge Sharing (4 questions)</td>
</tr>
<tr>
<td>Motivation &amp; Commitment (5 questions)</td>
<td></td>
</tr>
</tbody>
</table>

See Benchmark League Table detail on Pgs 13-16 for more information.

**Independent Variables:**
We then looked at the ‘independent variables’ or independent factors that affect the benchmark scores in the above categories. These variables were the answers to various questions asked in the CoP Leader Survey and CoP Members Survey. *For full list of statistically significant factors/questions from each survey see Appendix A.*

**Types of Analysis employed**
We used two types of analysis to look at the relationship between the independent and dependent variables:

**Correlation Analysis** shows where there is a statistically significant association between two variables. However, it doesn’t look at the cause and effect relationship.

**Multiple Linear Regression** allows us to model the expected value of a benchmark (e.g. Individual Performance) depending on what the values of other independent variables are (e.g. Funding for Events). *The advantage of Multiple Linear Regression analysis over correlation analysis is that it allows us to look at cause and effect. Multiple Linear Regression Analysis is the basis assertions on where you should invest to increase individual and organisational performance.*

*For more detailed explanation on types of Statistical Analysis employed see Appendix C.*
Comment on separating Individual and Organisational Performance; Individual and Organisational Knowledge Sharing and Individual Motivation and Commitment

Performance; Learning and Knowledge Sharing; Motivation and Commitment
We have separated analysis of factors affecting the five different aggregate ‘benchmarks’.

Individual
- Performance
- Individual Learning & Knowledge Sharing
- Individual Motivation & Commitment

Organisational (Team/Department/BU)
- Performance
- Learning & Knowledge Sharing

While many of factors are correlate with or predict improvements against all five aggregated benchmarks, the correlation and linear regression tables also show that some factors more strongly affect different benchmarks than others. In certain cases factors that are predictors of one benchmark but are NOT predictors of others.

For example, the level of training provided to leaders is a predictor of individual performance and individual learning and knowledge sharing. However, it is NOT a predictor of individual motivation and commitment. Conversely, time spent as a leader is a predictor of individual motivation and commitment but is NOT a predictor individual performance or individual learning and knowledge sharing.

Further analysis should look at different factors affect learning and knowledge sharing or motivation and commitment. For example focussing investment on factors only associated with improved performance at the expense of factors only associated with improved motivation and commitment could have a long-term negative impact on performance.

Performance Focus
For the purpose of this report we have focussed attention only on performance, not learning and knowledge sharing or motivation and commitment.

The reason for this is simple. The overall purpose of this report is to help you determine where to invest and to help you get buy-in from senior management on increased investment. The most important factor in investment is what performance returns will I get. By focussing only on performance we feel it gives you the best opportunity to engage and focus senior management on leveraging CoPs for performance improvement.

Individual versus Organisational (Team/Dept/BU) Performance Analysis
We have separated analysis between Individual and Organisational Performance because we are seeing an evolution in the role CoPs are playing from simply supporting individual members to supporting the wider organisation in achieving its goals. We therefore wanted to be able to separate analysis at these levels to better understand the factors associated with each. Are they the same or different?

Initial evidence suggests that factors affecting each are similar but with subtle differences.
How can you improve individual performance?

**Correlation Analysis**

We found eight factors that appear to help a community contribute to improved individual performance in the eyes of community members. This is based on correlation analysis.

**Key Factors correlating with Individual Performance**

In order of importance, key factors affecting individual performance are *the extent to which*:

1. CoP addresses business issues (1)
2. CoP help members develop skills (4)
3. **Funding is provided for events (3)**
4. CoP supports organisational goals (2)
5. Community has specific targets or deliverables (Yes) (7)
6. Training if provided for facilitators (6)
7. **CoP has senior management sponsorship (5)**
8. CoP has financial support (9)

Numbers in (brackets) show importance in affecting organisational performance. Factors highlighted in bold are those that are also predictors of improved performance.

<table>
<thead>
<tr>
<th>Factor</th>
<th>CoP participation helped individual - performance</th>
<th>CoP participation helped individual - learning &amp; knowledge sharing</th>
<th>helped individual - motivation &amp; commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP addresses business issues*</td>
<td>0.51</td>
<td>0.48</td>
<td>0.46</td>
</tr>
<tr>
<td>CoP develops skills*</td>
<td>0.48</td>
<td>0.43</td>
<td>0.37</td>
</tr>
<tr>
<td>Funding for events*</td>
<td>0.47</td>
<td>0.50</td>
<td>0.55</td>
</tr>
<tr>
<td>CoP supports organisations goals*</td>
<td>0.45</td>
<td>0.42</td>
<td>0.51</td>
</tr>
<tr>
<td>Community has a target (yes)</td>
<td>0.36</td>
<td>0.41</td>
<td>0.45</td>
</tr>
<tr>
<td>Training for facilitators*</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP has snr mgmt sponsorship*</td>
<td>0.30</td>
<td>0.33</td>
<td>0.38</td>
</tr>
<tr>
<td>CoP has financial support*</td>
<td>0.27</td>
<td>0.35</td>
<td>0.37</td>
</tr>
<tr>
<td>time spent as leader (days per week)</td>
<td>0.35</td>
<td></td>
<td>0.48</td>
</tr>
<tr>
<td>Funding ($)</td>
<td>0.35</td>
<td></td>
<td>0.37</td>
</tr>
<tr>
<td>Accountable CoP leader*</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* coded: 1=no extent, 5=great extent
** coded: 1=none, 5=very high

**What can we infer from this?**

Those factors that correlate are likely to be predictors of improved performance. We would expect that most if not all of these factors would show up in Linear Regression as being statistically significant with a larger sample.

**Notable Comments**

The top five CoP factors that improve their member’s own performance are also useful for increasing their learning and knowledge sharing and motivation and commitment. These are largely the same Top 10 as for Team/Dept/BU though the strength of the correlation differs (see Team/Dept/BU top 10 positions on brackets)

Community members do not see the time leaders spend on the community as affecting their individual job performance, but it is highly correlated with their own sense of motivation and commitment to the community.

**NB** – results from correlation analysis from Member-to-Member survey data have NOT been highlighted as almost all factors correlate. However, relevant factors from Member data have been highlighted in the Linear Regression Analysis. For more information on Member factors (e.g. what members participate in) that correlate with performance see Appendix B.
Causal factors: What really impacts individual performance?

**Linear Regression Analysis**

Multiple linear regression analysis allows us to be much surer about the causal relationship of the factor. This type of analysis identifies four factors that have an important impact on the value of communities to individual members: Funding Events, Sponsor Expectation, Facilitator Training and CoP Addresses Business Issues (see Table 2.1).

Increasing any of these four factors is likely to increase the value of the community to members in all three areas we asked about: improving performance, increasing learning and knowledge sharing and improving motivation and commitment.

<table>
<thead>
<tr>
<th>Variable</th>
<th>CoP participation helped individual - performance</th>
<th>CoP participation helped individual - learning &amp; knowledge sharing</th>
<th>CoP participation helped individual - motivation &amp; commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding - Events</td>
<td>0.369 0.731 ***</td>
<td>0.348 0.765 ***</td>
<td>0.363 0.710 ***</td>
</tr>
<tr>
<td>Sponsor Expectation</td>
<td>0.207 0.390 **</td>
<td>0.202 0.420 ***</td>
<td>0.176 0.302 *</td>
</tr>
<tr>
<td>Training facilitator</td>
<td>0.195 0.383 ***</td>
<td>0.160 0.348 **</td>
<td>-0.000 0.621 ***</td>
</tr>
<tr>
<td>CoP addresses business issues</td>
<td>0.212 0.322 **</td>
<td>0.174 0.301 **</td>
<td>0.234 0.334 **</td>
</tr>
<tr>
<td>Time spent as Leader/Facilitator (days/week)</td>
<td></td>
<td>0.007 0.621</td>
<td>0.196 0.263 *</td>
</tr>
</tbody>
</table>

**Table 2.1: Leader > Member Linear Regression/Individual**

The factors from the CoP Leader Survey in Table 2.1 have the most impact on members’ perception of value of communities. However, other factors from the CoP Member Survey highlighted in Table 2.2 also have a significant impact on perceived value by members.

**Member participation in developing good practice, usefulness of tools, participating in searching for info & knowledge, working on a community project or deliverable, the extent to which the CoP has goals and how integral to the organisation the CoP is seen by members** are all significant predictors in each of the three individual categories. In each case member participation in developing good practice has the highest or second highest effect on the individual outcomes.

<table>
<thead>
<tr>
<th>Variable</th>
<th>CoP participation helped individual - performance</th>
<th>CoP participation helped individual - learning &amp; knowledge sharing</th>
<th>CoP participation helped individual - motivation &amp; commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP incentives - solve daily challenges†</td>
<td>0.184 0.213 ***</td>
<td>0.102 0.128 ***</td>
<td>0.124 0.098 ***</td>
</tr>
<tr>
<td>CoP participation - good practice†</td>
<td>0.136 0.153 ***</td>
<td>0.163 0.197 ***</td>
<td>0.138 0.148 ***</td>
</tr>
<tr>
<td>Ask questions (# per year)</td>
<td>0.002 0.118 ***</td>
<td>0.001 0.065 **</td>
<td>0.075 0.067 **</td>
</tr>
<tr>
<td>Tenure CoP (years)</td>
<td>0.027 0.114 ***</td>
<td>0.015 0.070 **</td>
<td>0.017 0.133 **</td>
</tr>
<tr>
<td>CoP tools† †</td>
<td>0.127 0.105 ***</td>
<td>0.155 0.139 ***</td>
<td>0.124 0.098 ***</td>
</tr>
<tr>
<td>CoP participation - problem solving†</td>
<td>0.087 0.095 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP participation - information search†</td>
<td>0.090 0.094 **</td>
<td>0.109 0.125 ***</td>
<td>0.122 0.123 ***</td>
</tr>
<tr>
<td>CoP Integrated - Community Members†</td>
<td>0.086 0.064 **</td>
<td>0.108 0.115 **</td>
<td>0.130 0.122 ***</td>
</tr>
<tr>
<td>CoP participation - community project†</td>
<td>0.065 0.078 *</td>
<td>0.075 0.067 ***</td>
<td>0.117 0.133 ***</td>
</tr>
<tr>
<td>CoP incentives - meet goals†</td>
<td>0.062 0.073 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP goals† †</td>
<td>0.068 0.068 *</td>
<td>0.089 0.067 ***</td>
<td>0.077 0.075 **</td>
</tr>
<tr>
<td>Answer questions (# per year)</td>
<td>0.002 0.095 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP incentives - learning†</td>
<td>0.122 0.145 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP incentives - expand network†</td>
<td>0.123 0.137 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP incentives - career development†</td>
<td>0.113 0.139 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoP incentives - support daily activities†</td>
<td>0.076 0.085 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.007 0.338 ***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.2: Member > Member Linear Regression/Individual**

*** = p<0.001, ** = p<0.01, * = p<0.05 (2 tailed tests)
† Coded 1=no extent, 5=great extent
†† Coded 1=not useful, 5=extremely useful
How can you improve Organisational (Team/Dept/Business Unit) Performance?

**Correlation Analysis**

We found ten factors that appear to help a community contribute to improved individual performance in the eyes of community members. This is based on correlation analysis.

### Key Factors correlating with Organisational Performance

In order of importance, key factors affecting individual performance are the extent to which:

1. CoP addresses business issues (1)
2. CoP supports organisational goals (4)
3. Funding is provided for events (3)
4. CoP develops skills (2)
5. CoP has senior management sponsorship (7)
6. Training if provided for facilitators (6)
7. Community has specific targets or deliverables (Yes) (5)
8. Funding ($) (-)
9. CoP has financial support (8)
10. Time spent as Leader/facilitator (days per week) (-)

Numbers in (brackets) show importance in affecting individual performance. Factors highlighted in **bold** are those that are also predictors of improved performance.

<table>
<thead>
<tr>
<th>CoP helped team/dept/BU - performance</th>
<th>CoP helped team/dept/BU - knowledge sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP addresses business issues*</td>
<td>0.53</td>
</tr>
<tr>
<td>CoP supports organizations goals*</td>
<td>0.52</td>
</tr>
<tr>
<td>Funding for events*</td>
<td>0.47</td>
</tr>
<tr>
<td>CoP develops skills*</td>
<td>0.45</td>
</tr>
<tr>
<td>CoP has snr mgmt sponsorship*</td>
<td>0.44</td>
</tr>
<tr>
<td>Training for facilitators*</td>
<td>0.44</td>
</tr>
<tr>
<td>Community has a target (yes)</td>
<td>0.44</td>
</tr>
<tr>
<td>Funding ($)</td>
<td>0.35</td>
</tr>
<tr>
<td>CoP has financial support*</td>
<td>0.33</td>
</tr>
<tr>
<td>time spent as leader (days per week)</td>
<td>0.31</td>
</tr>
<tr>
<td>Experience (years)</td>
<td>0.40</td>
</tr>
<tr>
<td>Sponsor expectation**</td>
<td>0.47</td>
</tr>
</tbody>
</table>

* coded: 1=no extent, 5=great extent
** coded: 1=none, 5=very high

**What can we infer from this?**

Investment in execution of these factors is likely to lead to improved Team/Department/Business Unit Performance. We would expect that most, if not all, of these factors would show up in Multiple Linear Regression Analysis as being statistically significant with a larger sample.

**Notable Comments**

The factors include all 8 factors correlated with individual performance though the strength of the correlation differs (see Individual top 8 positions on brackets).

Overall Funding ($) and Time spent as Leader/facilitator is correlated with Team/Dept/BU Performance, but NOT with Individual Performance. Funding for Events is correlated with Performance but NOT with Learning & Knowledge Sharing. Experience (years) & Sponsor Expectation are correlated with Learning & Knowledge Sharing but NOT Performance.

---

NB – results from correlation analysis from Member-to-Member survey data have NOT been highlighted as almost all factors correlate. However, relevant factors from Member data have been highlighted in the Linear Regression Analysis. For more information on Member factors (e.g. what members participate in) that correlate with performance see Appendix B.
Causal Factors – Team/Department/BU Level

Multiple linear regression identifies the same four factors have an important impact on Team/Department/Business Unit Performance: Funding Events, Sponsor Expectation, Facilitator Training and CoP Addresses Business Issues (see Table 3.1). While their relative importance does change slightly, Funding for Events will still have by far the biggest impact on Team/Dept/BU performance.

Increasing any of these four factors is likely to increase the value of the community.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstd coefficient</th>
<th>Std coefficient</th>
<th>Sig.</th>
<th>Unstd coefficient</th>
<th>Std coefficient</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding - Events</td>
<td>0.392</td>
<td>0.779</td>
<td>***</td>
<td>0.304</td>
<td>0.696</td>
<td>***</td>
</tr>
<tr>
<td>Training - facilitator</td>
<td>0.262</td>
<td>0.516</td>
<td>***</td>
<td>0.184</td>
<td>0.417</td>
<td>***</td>
</tr>
<tr>
<td>Sponsor Expectation</td>
<td>0.236</td>
<td>0.446</td>
<td>***</td>
<td>0.283</td>
<td>0.615</td>
<td>***</td>
</tr>
<tr>
<td>CoP addresses business issues</td>
<td>0.195</td>
<td>0.306</td>
<td>***</td>
<td>0.138</td>
<td>0.250</td>
<td>**</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.438</td>
<td>0.431</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adj R2: 0.859 0.766
N (pairwise deletions): 27-44 27-44

The factors from the CoP Leader Survey in Table 3.1 have the most impact on members’ perception of value of communities. However, other factors from the CoP Member Survey highlighted in Table 3.2 also have a significant impact on perceived value by members.

Member participation in developing good practice, what motivates (incentives) people to participate (solve daily challenges), the extent to which the CoP has goals, usefulness of tools, participating in connecting to experts to solve a problem and how integral to the organisation the CoP is seen by members and by senior managers are all significant predictors in both improving Team/Department/BU performance and knowledge sharing. In each case member participation in developing good practice has the highest or second highest effect on the Team/Department/BU outcomes.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstd coefficient</th>
<th>Std coefficient</th>
<th>Sig.</th>
<th>Unstd coefficient</th>
<th>Std coefficient</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP participation - good practice†</td>
<td>0.187</td>
<td>0.210</td>
<td>***</td>
<td>0.157</td>
<td>0.174</td>
<td>***</td>
</tr>
<tr>
<td>CoP incentives - solve daily challenges†</td>
<td>0.179</td>
<td>0.209</td>
<td>***</td>
<td>0.109</td>
<td>0.126</td>
<td>***</td>
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<tr>
<td>CoP goals†</td>
<td>0.145</td>
<td>0.147</td>
<td>***</td>
<td>0.146</td>
<td>0.148</td>
<td>***</td>
</tr>
<tr>
<td>CoP tools†</td>
<td>0.162</td>
<td>0.134</td>
<td>***</td>
<td>0.195</td>
<td>0.160</td>
<td>***</td>
</tr>
<tr>
<td>CoP Integrated - Community Members†</td>
<td>0.106</td>
<td>0.104</td>
<td>***</td>
<td>0.146</td>
<td>0.142</td>
<td>***</td>
</tr>
<tr>
<td>CoP incentives - meet goals†</td>
<td>0.077</td>
<td>0.091</td>
<td>**</td>
<td>0.074</td>
<td>0.087</td>
<td>**</td>
</tr>
<tr>
<td>CoP participation - problem solving†</td>
<td>0.072</td>
<td>0.076</td>
<td>**</td>
<td>0.107</td>
<td>0.112</td>
<td>***</td>
</tr>
<tr>
<td>CoP integrated - Snr Mgrs†</td>
<td>0.063</td>
<td>0.075</td>
<td>**</td>
<td>0.050</td>
<td>0.060</td>
<td>*</td>
</tr>
<tr>
<td>Tenure CoP (years)</td>
<td>0.018</td>
<td>0.075</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Answer questions (# per year)</td>
<td>0.001</td>
<td>0.063</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure experience (years)</td>
<td></td>
<td>0.015</td>
<td>0.091</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CoP roles - Facilitator†</td>
<td></td>
<td>0.069</td>
<td>0.062</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.391</td>
<td>-0.251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adj R2: 0.528 0.490
N (pairwise deletions): 1060-1281 1060-1281

† Coded 1=no extent, 5=great extent
‡‡ Coded 1=not useful, 5=extremely useful

Table 3.1: Leader > Member Linear Regression -Team/Dept/BU
Table 3.2: Member > Member Linear Regression -Team/Dept/BU
Comment: A word of caution on basing investment on these results

The types of statistical analysis (i.e. correlation and multiple linear regression) were chosen as the most appropriate methods to analyse the data. Correlation analysis highlights associations between variables, while multiple linear regression allows us to confidently predict causal relationships.

We are very confident that the factors identified through the multiple linear regressions are predictors of improved performance. If you invest time and money in improving execution in these areas, the organisation – and the individuals within it - will reap the performance benefits.

However, the size of the sample when pairing up CoP Leader data with corresponding CoP Member data from each CoP was at most 44 CoPs. We therefore need to treat the results with some caution.

The caution is not that those factors highlighted don’t predict improved performance. Of that we are confident. The concern is that there may also be others factors that are also strong predictors of performance. However, given the small sample size these other factors did not show up as being significant in the linear regression analysis.

Please therefore be aware that while investing in the areas highlighted will bring performance returns, the list of factors affecting performance is by no means complete. Indeed, there may even be other factors that, in a larger sample, will be greater predictors of improved performance.

As a basic rule, those factors highlighted by the correlation analysis but that did not show up as significant on linear regression, are likely to be predictors in a larger sample.
Implications for Practice

Guidelines for Good Practice

Based on evidence from the research we have identified nine practices that are associated with individual and organisational performance. While we identified other ways communities could impact individuals and organisations (e.g. increasing learning and knowledge sharing or motivation and commitment for members), the factors in the guidelines below focus on one dimension of individual and organisational impact: increased performance.

These factors have been validated via correlation and multiple linear regression analysis to identify the key practices we can confidently say are predictors of improved performance.

Put simply this means that improved execution in each of these areas will result in improvements in individual and organisational performance. The key factors are:

1. Provide significant funding for face-to-face events
2. Ensure community activities address business issues
3. Provide CoP leader training
4. Ensure CoP leaders are given sufficient time for their role
5. Ensure high levels of sponsor expectation
6. Engage members in developing good practice
7. Improve the usefulness of Tools provided
8. Ensure there are clearly stated goals
9. Promote CoPs ability to help employee’s solve daily work challenges

While our quantitative benchmarking research identifies which factors are significant, our qualitative research provides supporting examples of how some organisations have derived value from CoP Activities. Some examples are provided in the ‘Value from CoPs’ section at the end of this report.

More detailed examples of good practices can be found in KIN’s sister report ‘Innovative Practices in CoPs’. For more information contact: douglas.archibald@wbs.ac.uk.

What can organisations do to sustain communities?

Define the focus of the community

Communities that improve organisational and member performance have shifted away from general knowledge sharing toward a more specific focus. We found two areas where organisations have defined this focus.

1. Ensure community activities address business issues

CoP Leader Quote

“We have worked hard to align the network goals with the operational goals. In fact, the network’s goals have to be based on operational goals. If not, resources will not be allocated to the network.”

Value adding communities address specific, important business issues. Pfizer’s Safety Science communities, for example, annually review accomplishments and goals with a steering team. The communities and the steering team jointly identify areas on which to
focus. The steering team provides financial support to the communities – in terms of
time to devote to community activities – commensurate with those goals. The focus of
communities can also be defined by cascading organisational goals through to the
community. A company in the oil and gas industry ties community goals directly to
organisational goals by asking communities to “report” into one of four management
teams. Each team defines community goals by assessing their contribution to
organisational goals for their area of the business. Expecting communities to deliver
value to the organisation does not inhibit them. It energizes them.

Implication for organisations: There is likely room in your organisation for informal
knowledge sharing communities. But to get the greatest value from communities for
both the organisation and their members, focus some communities on important
business issues. What are you doing to engage the business in how CoPs can help
address business issues? Either by cascading organizational goals down to
communities or setting up a goal setting process specifically for communities, charge
communities with some purpose that will clearly impact the organization.

2. Ensure high levels of sponsor expectation

CoP Leader Quote

“Having a Community Performance Contract (goals) with Org X Management has assisted
the Community to demonstrate its delivery on a yearly basis and therefore acceptance and
support of the Community by the Management has been effortless.”

Most communities have a senior management sponsor, but often they do little to
nothing to actually support the community. Our research indicates that genuine
expectations for results are also energizing for communities. Communities should reflect
communities’ deliverables in the level of sponsor and management expectation. When
Pfizer’s safety sciences communities brought forward goals that their management
steering committee thought were too meek, they asked for more aggressive goals and
told the communities they would provide the support they would need. In an oil and gas
company community goals were clearly tied to wider Business Unit goals and the
stretch targets were agreed in collaboration with BU Sponsors.

Implication for organisations: don’t have do-nothing sponsors for communities.
Articulating expectations and demonstrating support shows communities that they
matter to the organisation.

Support
Organisations that get clear value from communities also follow through on supporting
community development and activity. Providing support has often been touted as important
to maintain the health of communities. Executing well on that support makes a significant
difference in the value of communities.

3. Provide significant funding for face-to-face events

CoP Member Quote

“The community helps but so does knowing people face to face. I travel quite a lot to
different offices and the fact that I can put faces to community names increases my willingness to participate.”

We have long known that face-to-face contact is important to create the trust and rapport that communities need to develop effectively. By funding face to face events – travel mostly - organisations can enable that interaction. One company in our study asks communities to develop a proposal for their face to face workshops that included a description of the impact of community event. The process helps communities think through the value of the meeting and provides some discipline in staying focused.

*Implication for organisations: Communities are not free. Facilitate real contact among members. Give them the financial support required to interact, think together and solve real problems.*

4. Give community leaders sufficient time for their role

**CoP Leader Quote**

“It is defined to spend 10% of our time but most of time spent is my personal time such as weekends or late night hours. It is my personal desire that makes me dedicate my time.”

When community leaders try to lead in their “spare time” community leadership can easily be squeezed off their plate by other more pressing needs. Funding leaders’ time gives them a chance to execute their role. Most community leaders spend ½ to 1 day a week on the community (an average of 17% of their time). Spending this time networking, facilitating meetings, engaging sponsors and managing the community’s library or web resource, can significantly improve member’s sense of satisfaction and commitment.

*Implication for organisations: Community leadership takes time. This is also a direct cost of communities. Focus on communities you are willing to make a real investment in. Time has to be put aside for leaders to perform their role if the goal is organisational performance improvement. Not all leaders will do it after work for the love of the job.*

5. Provide CoP leader training

**CoP Member Quote**

“The key to any successful community is to have a very active facilitator that leads the community and organises events etc.”

Leading a community is different from leading a team or being an individual contributor. We expected that leader training would correlate with greater value for members, which it does. However, it correlates even higher with increased organisational performance. One organisation in our study has intentionally high leader turnover and conducts a series of one-day leadership training workshops around the world for its newly elected leaders.

---

1 Time spent by Leader is the only of the nine factors identified that does not show up on linear regression for individual and organisational performance. There are two reasons for this. Firstly, there is one outlier with high time spent and low performance. May have been an inaccurate answer. If you do the correlation without this case it is 0.43 (significant) which puts Time spent as leader as it fifth most important factor. Secondly, there is little variance in the data. 80% of the CoPs indicate less than half a day or up to one day. This factor is a very good example of something we would expect to show more prominently in a larger sample.
community leaders. While time consuming, the trainings help community leaders understand their role – not just how to work the technology – and makes community leadership clearly distinct from team leadership. Training should include the key activities of community leadership; networking, facilitating meetings and influencing the organisation.

*Implication for organisations: Community leaders need to understand their job. They too need to expect that community leadership will demand something of them and they will be required to fulfil the expectations managers and members have of them as leaders.*

6. Use simple, useful IT tools

**CoP Member Quote**

“The number of tools is not as important as the quality and useability of the tools used. A few powerful tools combined with appropriate training enables our CoP to function very efficiently and effectively.”

Most communities do not need very complex tools. Make sure tools for communication, collaboration and document management are useful. High performing CoPs don’t use more sophisticated IT tools than lower performing ones. Typically high performing communities need the following functions:

- discussion forums
- document libraries
- effective search
- expertise locators
- on-demand teleconferencing

These are not exceptional functional needs. And the tools high impact communities use are generally simple and easy to use.

*Implication for organisations: Simplicity is more important than fancy functions. Make community tools simple, straightforward, easy to get to from standard email, easy to send or post documents, simply one-engine search, simple to browse documents.*

What leaders can do?

Our research shows that there are some things community leaders can do that significantly impact the value of the community.

7. Set clear goals and targets

**CoP Member Quote**

“This is a relatively new CoP. Having a clear measurable goal that has meaning to the community has acted as a catalyst to bring the group together. It has provided a common vocabulary and a sense of “Team.”

Clearly stated goals and target also correlate highly with the value communities create for the organisation. Community goals are typically developed in collaboration with the community sponsor or governance group and/or core community members. In one
organization in the study community goals cascade down to communities through the management structure. In another, goals are set in by the core members and fed up to a steering group.

*Implications for leaders: Actively engage community members in identifying goals and the outputs that will achieve them. Use these goals to keep the community focused.*

8. Engage members in developing good practice

**CoP Member Quote**

“Through developing the tools for the network I have developed a better understanding of the planning processes involved.”

Communities that have an impact on organisational and member performance do more than share knowledge generally. They actively support member participation in developing practices. One organisation in the study hosts an annual contest on specific techniques that added value to customers. Each geographic location hosts a competition. Criteria for winning are clearly known: technical depth, business relevance, innovativeness of approach, and overall impression. Winners of the local competition participate in a regional one and winners of the regional finals compete in a global competition in which they give their presentation to the technical fellows, Vice Presidents and Senior Vice Presidents.

*Implication for leaders: keep practice at the centre of the community; help community members learn specific practices from each other and/or collectively develop new ones.*

9. Focus on solving daily work challenges

**CoP Member Quote**

“I think the CoP X Forum is a great tool if you have a specific problem. You can get almost instant feedback on whether others have had similar issues.”

The extent to which community members see the community as a resource for solving everyday work challenges also correlates with high individual and organizational impact. Sometimes communities turn their meetings into a series of technical presentations. Our research clearly shows that this is not what drives members to participate. Solving everyday work problems is. Leaders should keep their community focused on genuinely useful discussions, not presentations.

They should encourage members to ask questions of their community to solve day-to-day work challenges. Collecting and telling stories about how the CoP has helped members adds greatly to the image of the CoP. To build membership leaders can also “advertise” the CoP as a place to bring technical problems, ideas and questions. One organisation partnered with their marketing department to promote the CoP programme throughout the organisation resulting in a significant spike in CoP membership.

*Implication for leaders: Like focusing on practices, focusing on specific work problems keeps the community grounded in real work and provides real value for members. Promote the value of the community though success stories from existing members.*
Most important factors affecting performance

While the nine factors identified are all strongly associated with improved individual and organisational performance, four factors emerged from our analysis that stand out.

Each of these four factors independently contributes significantly to both individual and organisational performance. That is, increasing any one of them independently is likely in itself to improve performance. However, *increasing all four will provide a cumulative effect on individual and organisational performance.*

The table below shows the cumulative effect improving all execution of all four factors could have on performance, based on a 1-5 scale.

<table>
<thead>
<tr>
<th>Factors Affecting Performance</th>
<th>Individual Performance Improvement</th>
<th>Organisational Performance Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide significant funding for face-to-face events</td>
<td>0.369</td>
<td>0.392</td>
</tr>
<tr>
<td>Ensure community activities address business issues</td>
<td>0.212</td>
<td>0.262</td>
</tr>
<tr>
<td>Ensure high levels of sponsor expectation</td>
<td>0.207</td>
<td>0.236</td>
</tr>
<tr>
<td>Provide community leader training</td>
<td>0.195</td>
<td>0.195</td>
</tr>
<tr>
<td><strong>Cumulative Improvement Effect</strong></td>
<td><strong>0.983</strong></td>
<td><strong>1.085</strong></td>
</tr>
</tbody>
</table>

This shows the cumulative effect of improving execution of these four factors would significantly increase (by approximately 1 point out of 5) the impact their CoP has on individual and organisational performance improvement. The top ten performing CoPs in our study (i.e. those that scored greater than 3.50 out of 5.00 in terms of impact on performance) all scored highly on the above factors. Improvement in these factors would effectively move them 'up the league table'.

**What does this mean in practical terms? How might improvement be manifested?**

The earlier sub-section on 'Value from CoPs' provides some practical, real life examples of the value gained from high performing CoPs in the following areas:

- Winning work
- Improving Customer Satisfaction
- Saving time
- Saving money
- Attracting and retaining talent

CoPs in our study that improve execution of the above factors can therefore expect to see a step change in their contribution to helping the organisation win work, save money etc.

While focussing on these factors are not new suggestions, we have for the first time made a direct evidence–based link between investment in these areas and the impact we can expect a community to have on individual and organisational performance.

Since our overall sample of communities is small with additional communities added to the study, we expect we would find more factors that have a similar direct, causal relationship on individual and organisational performance.
Reflections on Research

How does this add to existing knowledge?

Existing Knowledge tells us (See link to Previous Research in Introduction):

- Communities of Practice are an important mechanism for learning and knowledge sharing across traditional organisational silos and boundaries
- Communities of Practice are an important and complementary way of organising for leveraging knowledge for performance improvement- Communities of Practice are therefore emerging of increasing importance in increasingly fast changing environment that today’s organisations operate in

However, most if not all of the research linking CoPs to improved organisational performance are based on qualitative studies.

Gaps appear to be (See link to Previous Research in Introduction):

- There appears to be a gap in the literature for quantitative studies that show the link between CoPs and performance improvement, either at individual or organisational level
- Following on from this gap, there has been no work done – based on quantitative evidence of CoP performance across a number of Communities (>50) across a number of organisations (10>) that highlights the key factors that predict performance improvements at individual or organisational level

What Phase 1 of this study adds to existing research is:

- This research provides initial findings that identify a number of key factors that influence improved performance at both individual and organisational level
- Through multiple linear regression analysis we can be confident that four key CoP factors are strong predictors of improved individual and organisational performance

However, given the small size of the sample we’d like to do more in order to:

- Increase the level of surety that these are strong predictors
- Determine which of the other factors that correlate strongly would also show up on Multiple Linear Regression Analysis in a larger sample
- Develop industry specific benchmarks
Limitations of Research

The main limitations of this research are as follows

- **Sample size (number of CoPs)**
  - While 1286 members answered the CoP Member survey, only 44 CoP Leaders answered the CoP Leader Survey. In some of the questions in the CoP Leader Survey, as little as 27 leaders answered them completely.
  - This means that while we can be very sure of the reliability of the analysis from the Member > Member data, the Leader > Member Data is less reliable.

- **Response rates**
  - The response rates across Communities did vary, with a few lower than 5%. While there was no significant link between response rate and performance we would need to have higher response rates than 5% across all CoPs in order to improve the reliability of the results in Phase 2

- **CoP Co-ordinator or Organisation level view**
  - We collected data and information from two levels of audience:
    - CoP Leaders
    - CoP members
  - Gathering of basic data from CoP Co-ordinators would allow us to look in more detail at the organisation level factors affecting CoP performance

- **Detailed analysis of data and information**
  - Not enough time has been spent analysing and representing the data.
  - This is partly due to time available to complete the project within the budget provided. However, the other reason is more pragmatic – it would make more sense to analyse the data in more detail when we have a larger, more reliable sample size. This is the focus for Phase 2

- **Focus on ‘what’ or ‘where’ but not the how**
  - It was not the intention of the benchmarking survey to focus on the ‘how’ to drive performance improvement. Rather the focus was to (a) develop an effective tool for benchmarking CoPs and (b) identify the key factors that predict improved performance. We have delivered on (a) and – with some caveats – delivered on (b)
  - In order to build on these findings so that they can really benefit participating organisations, we need to move to focus on validating the ‘what’ and ‘where’, but most of all to uncover more of the ‘how’ to execute effectively in the factors/areas we’ve Identified

- **Industry influencing factors**
  - We did not get a large enough sample to be able to develop industry benchmarks and look at industry factors in performance. This will be a focus for Phase 2

- **Factors relating to different ‘types of CoP’**
  - We also did not make much headway in understanding more about the different types of CoP and the relationships between those and the specific Aggregate Benchmarks. Again, this will be a focus for Phase 2
Suggestions for Further Research

Phase 1 participants study participants highlighted a number of areas for potential further research, many of which we have addressed at some level in this report.

In Phase 2 of the research we plan to focus on areas not addressed as well as to look at factors raised in this report more comprehensively, particularly with ‘How To’ detail.

A summary of ‘common’ (with at least two independent requests) areas is provided below. For a full list of areas of interest from further research from Phase 1 participants please contact douglas.archibald@wbs.ac.uk.

### Key Common Areas of Interest from Phase 1 Participants

<table>
<thead>
<tr>
<th>Area</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement/Impact</td>
<td>Guidelines for Good Practice</td>
</tr>
<tr>
<td>Motivation/Rewards</td>
<td>Cultural Issues</td>
</tr>
<tr>
<td>Leader Attributes</td>
<td>CoPs vs Other Models</td>
</tr>
<tr>
<td>Training for Leaders/Facilitators</td>
<td>Case Studies</td>
</tr>
<tr>
<td>Key Factors for Performance</td>
<td>Maturity Models</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inc</th>
<th>Request Summary categories</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>Tracking Impact</td>
</tr>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>Measuring success. Establishing benchmark for industry</td>
</tr>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>Measurement of productivity or business value coming out of community efforts</td>
</tr>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>How are companies measuring the ROI on Communities?</td>
</tr>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>Making linkage to business value</td>
</tr>
<tr>
<td>6</td>
<td>Measurement/Impact</td>
<td>Ask more detailed questions about training / performance / measures / competences etc.</td>
</tr>
<tr>
<td>5</td>
<td>Motivation/Rewards</td>
<td>Interested in the motivation to participate. Methods used to promote members to participate and non-members to join.</td>
</tr>
<tr>
<td>5</td>
<td>Motivation/Rewards</td>
<td>Motivators in communities (rewards)</td>
</tr>
<tr>
<td>5</td>
<td>Motivation/Rewards</td>
<td>Motivation, Rewards and Recognition</td>
</tr>
<tr>
<td>5</td>
<td>Motivation/Rewards</td>
<td>Perceived rewards for community involvement - formal - informal</td>
</tr>
<tr>
<td>5</td>
<td>Motivation/Rewards</td>
<td>How to win people to participate?</td>
</tr>
<tr>
<td>3</td>
<td>Key Factors</td>
<td>Explore correlations between characteristics of CoPs and their effectiveness = The more &quot;actionable&quot; the info the better.</td>
</tr>
<tr>
<td>3</td>
<td>Key Factors</td>
<td>All CoPs scored low on team performance? How do we change this?</td>
</tr>
<tr>
<td>3</td>
<td>Key Factors</td>
<td>For the predictors of performance - What things do we have to do to improve?</td>
</tr>
<tr>
<td>3</td>
<td>Leader Attributes</td>
<td>Would like to explore further the attributes of the network/network leader which make a CoP/network successful</td>
</tr>
<tr>
<td>3</td>
<td>Leader Attributes</td>
<td>Characteristics of leader for successful communities</td>
</tr>
<tr>
<td>3</td>
<td>Leader Attributes</td>
<td>More work on what makes a good community leader. Skills etc</td>
</tr>
<tr>
<td>3</td>
<td>Training Leaders</td>
<td>What are the best tips for leader training, virtually &amp; face to face</td>
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<tr>
<td>3</td>
<td>Training Leaders</td>
<td>Training and motivation of community leaders</td>
</tr>
<tr>
<td>3</td>
<td>Training Leaders</td>
<td>Ask more detailed questions about training / performance / measures / competences etc.</td>
</tr>
<tr>
<td>2</td>
<td>Guidelines for Good Practice</td>
<td>Guidelines how and why we need to move forward with CoPs</td>
</tr>
<tr>
<td>2</td>
<td>Guidelines for Good Practice</td>
<td>For us the biggest problem is time for people to participate in CoPs. Most of people are consultants who are on customer sites &amp; need to reach their chargeability goal. CoPs are supported by senior management &amp; are seen to provide benefits, still we stru</td>
</tr>
<tr>
<td>2</td>
<td>Maturity models</td>
<td>More information on community maturity model and metrics</td>
</tr>
<tr>
<td>2</td>
<td>Maturity models</td>
<td>Accelerating pace at which communities mature</td>
</tr>
<tr>
<td>2</td>
<td>Survey Participation</td>
<td>How to implement a successful survey? (i.e. get participation &gt; 30%)</td>
</tr>
<tr>
<td>2</td>
<td>Survey Participation</td>
<td>Response rates need to be higher</td>
</tr>
<tr>
<td>2</td>
<td>Cultural Issues</td>
<td>Any cross cultural issues/lessons? Especially any lession from Japanese experiences?</td>
</tr>
<tr>
<td>2</td>
<td>Cultural Issues</td>
<td>Cultural impact on CoP participation?</td>
</tr>
<tr>
<td>2</td>
<td>CoPs vs Other Approaches</td>
<td>CoPs use in comparison to other sources within or outside organisation to</td>
</tr>
<tr>
<td>2</td>
<td>CoPs vs Other Approaches</td>
<td>Correlation between various forms of training / peer assists etc &amp; CoP value added</td>
</tr>
<tr>
<td>2</td>
<td>Case Studies</td>
<td>Some collations of comments and examples from different companies, to provide suggestions and case studies which we can adapt and apply</td>
</tr>
<tr>
<td>2</td>
<td>Case Studies</td>
<td>Examples or success stories of what works well (almost like lessons learned)</td>
</tr>
</tbody>
</table>
Research Next Steps

Phase 2 Activities
Use what participants said as basis for demands … plus addressing methodological and content areas we note were weak

Key Messages
1) Improve sample size and quality to get Quantitative Data that we can confidently make assertions on key variable affecting outcomes: WHERE SHOULD YOU BE INVESTING?

2) Use results from Phase 2a Benchmarking Survey’s extended sample to drill down more on the key factors influencing performance – focussing on follow up interviews with CoP Co-ords, CoP leaders and CoP Members (Focus Groups by org): WHAT SHOULD YOU BE DOING AND HOW? KEY DIFFERENCES BETWEEN HIGH/LOW PERFORMERS.

3) Commit to much more detailed analysis of quantitative and qualitative data to produce an actionable report on How to Use CoPs to Drive Individual and Organisational Performance Improvement: MORE DETAILED RECIPE BOOK: FOLLOW INSTRUCTIONS

4) Explore how to support group of participating organisations to learn from the application of these findings going forward: ONGOING LEARNING SUPPORT

Key Timelines (Projected)

Phase 2a (Mar – May): Benchmarking Surveys*
Select Grey Areas from Phase 1. Clarify through Interviews. Tweak surveys where relevant
Increase sample size to collect data on 150 CoPs in total. Tighten criteria on participation.
Include CoP Co-ordinators Survey.

Phase 2a (Jun - Jul): Interview planning*
Basic analysis and sense making of Phase 2a survey findings.
Plan for follow up interviews/focus groups on ‘how to’ improve execution of key factors.

Phase 2c (Sep - Oct): Follow Up Interviews
Follow Up interviews and focus groups on ‘how to’ improve execution of key factors.
Drill down on detailed differences between high and low performing CoPs.

Phase 2d (Nov - Dec): Detailed Analysis & Write Up
Detailed analysis of write up and results.
Increased focus on differences between: Industries/Sectors; Different Types of CoPs; plus other issues arising.

… plan to be completed by end December 2007

Phase 2e (ongoing):
Support ongoing learning between participating organisations on how to improve execution of key factors.
Conclusions

The purpose of the benchmarking survey and report was to:

- help Chief Knowledge Officers (CKO’s), Communities of Practice (CoP) Co-ordinators and others make strategy and investment decisions regarding CoP programmes
- provide CKO’s and CoP Co-ordinators with evidence to help senior management understand how CoPs can create tangible organisational performance improvement

The contents of this report, coupled with the specific benchmarking feedback that CoPs from each of participating organisation has received, should allow you to make better strategy and investment decisions to increase the contribution your CoPs make to individual and organisational performance improvement.

It should also help you to engage senior management in the potential to leverage CoPs for performance improvement.

Based on the quantitative and qualitative evidence presented here there is clearly – in the eyes of CoP leaders and members – a significant contribution being made by many CoPs to individual and organisational performance improvement.

However, investment – both time and money – is required.

There is clearly a significant variation in the contribution the 52 different CoPs in our study are making. Those organisations and CoPs that are investing time and money are reaping the performance rewards.

The data from across all 52 CoPs has allowed us to make assertions on nine key CoP factors that predict performance. We can confidently predict that investment in four of these areas now will increase the impact CoPs have on performance improvement in the organisation.

You may have known that all along.

Now you have some evidence to back it up when you discuss with senior management.

The next step for us in Phase 2 is to develop more ‘how to’ detail on how to improve execution of each of these key factors.
A) Summary of Benchmarking Survey Questions

1) CoP Leader Survey
Questions/Factors that are statistically significant predictors of performance. Those in **bold**
were significant for individual AND organisational performance

5. **How much time do you spend in your role as Community leader/facilitator?**

   - Less than half a day per week
   - Up to one day per week
   - Up to 2 days per week
   - Up to 3 days per week
   - Up to 4 days per week
   - Up to 5 days per week
   - Full time

21. **What is the level of expectation of your Sponsor or Senior Management in terms of the Community’s impact on the business?**

   - Very High
   - High
   - Significant
   - Low
   - None
   - **Don’t Know**

34. **To what extent does your Community benefit organisation in the following areas?**

   - Supports strategic goals or objectives
   - Addresses specific business issues
   - Develops individuals’ key skills and competencies
   - Develops business capabilities
   - Other (please specify below):

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports strategic goals or objectives</td>
<td><strong>To a great extent</strong></td>
</tr>
<tr>
<td>Addresses specific business issues</td>
<td><strong>To a significant extent</strong></td>
</tr>
<tr>
<td>Develops individuals’ key skills and competencies</td>
<td><strong>To some extent</strong></td>
</tr>
<tr>
<td>Develops business capabilities</td>
<td><strong>To a small extent</strong></td>
</tr>
<tr>
<td>Other (please specify below):</td>
<td><strong>Don’t Know</strong></td>
</tr>
</tbody>
</table>

47. **To what extent is funding allocated to the following areas?**

   - Events
   - FTE/Salaries
   - Expert help/knowledge
   - Technology
   - Other (please specify):

<table>
<thead>
<tr>
<th>Allocation</th>
<th>Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events</td>
<td><strong>To a great extent</strong></td>
</tr>
<tr>
<td>FTE/Salaries</td>
<td><strong>To a significant extent</strong></td>
</tr>
<tr>
<td>Expert help/knowledge</td>
<td><strong>To some extent</strong></td>
</tr>
<tr>
<td>Technology</td>
<td><strong>To a small extent</strong></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td><strong>To no extent</strong></td>
</tr>
</tbody>
</table>

49. **To what extent is training provided for:**

   - Sponsors
   - Leaders
   - Facilitators
   - Members
   - Other (please specify):

<table>
<thead>
<tr>
<th>Training Provided For</th>
<th>Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsors</td>
<td><strong>To a great extent</strong></td>
</tr>
<tr>
<td>Leaders</td>
<td><strong>To a significant extent</strong></td>
</tr>
<tr>
<td>Facilitators</td>
<td><strong>To some extent</strong></td>
</tr>
<tr>
<td>Members</td>
<td><strong>To a small extent</strong></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td><strong>To no extent</strong></td>
</tr>
</tbody>
</table>

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KIN CoP Benchmarking Report
© Knowledge & Innovation Network, Warwick Business School
2) CoP Member Survey
Questions/Factors that are statistically significant predictors of performance. Those in **bold** were significant for individual AND organisational performance:

7. To what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th>The Community that I belong to has stated goals.</th>
<th>To a great extent</th>
<th>To a significant extent</th>
<th>To some extent</th>
<th>To a small extent</th>
<th>To no extent</th>
<th>Don't Know</th>
</tr>
</thead>
</table>

8. To what extent do you think communities are seen as an integral part of the organisation by?

<table>
<thead>
<tr>
<th>Senior Managers</th>
<th>To a great extent</th>
<th>To a significant extent</th>
<th>To some extent</th>
<th>To a small extent</th>
<th>To no extent</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community leaders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line Managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others in the organisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Please rate the usefulness of the following Community of Practice tools that you’ve used:

<table>
<thead>
<tr>
<th>Blogs (Weblogs)</th>
<th>Social Networking tools</th>
<th>Extremely Useful</th>
<th>Very Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion forums</td>
<td>Teamrooms</td>
<td>Useful Somewhat</td>
<td>Useful</td>
</tr>
<tr>
<td>Document libraries</td>
<td>Teleconferencing</td>
<td>Not Useful</td>
<td>Don’t Know/Dont Use</td>
</tr>
<tr>
<td>Email discussion lists</td>
<td>Text messaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expertise locator</td>
<td>Videoconferencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant messaging</td>
<td>Webcasts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsgroups</td>
<td>RSS Newsfeeds (Really Simple Syndication)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsgroups</td>
<td>Web conferencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search</td>
<td>Wikis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** an aggregate of all the usefulness of all tools was taken.

12. To what extent do you **spend your time on Community activities** on the following?

| Looking for/connecting up with other members to solve a problem | To a great extent | To a significant extent | To some extent | To a small extent | To no extent | Don’t Know |
| Searching for information and knowledge |             |                        |               |                 |             |           |
| Developing good practice |             |                        |               |                 |             |           |
| Working on a Community project or deliverable |             |                        |               |                 |             |           |
| Attending events |             |                        |               |                 |             |           |
| Other (please specify) |             |                        |               |                 |             |           |

13. To what extent are you motivated to participate in the Community by the following?

| Help meet business goals | To a great extent | To a significant extent | To some extent | To a small extent | To no extent | Don’t Know |
| Learning and skills development |             |                        |               |                 |             |           |
| Keeping up with current developments in the field |             |                        |               |                 |             |           |
| Expand personal network |             |                        |               |                 |             |           |
| Career development |             |                        |               |                 |             |           |
| Support day-to-day business activities |             |                        |               |                 |             |           |
| Help solve everyday work challenges |             |                        |               |                 |             |           |
B) Tables and Graphs

1) Results from initial Learning from Practice Survey, a pre-cursor to this study.

How useful are these initiative in supporting individual and organisational learning?

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Prevalence Individual Organisation

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Benchmarking & BP Sharing Mentoring/Coaching Social Networking Intranets Knowledge Elicitation; Learning Histories Storytelling Wikis Blogs

Benchmarking & BP Sharing Mentoring/Coaching Social Networking Intranets Knowledge Elicitation; Learning Histories Storytelling Wikis Blogs

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Social Networking Benchmarking & BP Sharing Peer Assists After Action Reviews Communities of Practice Learning Histories Storytelling Knowledge Fairs/Forums Intranets Knowledge Elicitation; Exit Interviews Wikis Blogs

Social Networking Benchmarking & BP Sharing Peer Assists After Action Reviews Communities of Practice Learning Histories Storytelling Knowledge Fairs/Forums Intranets Knowledge Elicitation; Exit Interviews Wikis Blogs

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2) Additional Results from Correlation and Linear Regression Analysis

The following tables were not included in the main section of report.

Correlation Analysis based on comparing Leader to Member data (44 samples)

At Individual level in detail

<table>
<thead>
<tr>
<th>CoP participation helped individual - performance</th>
<th>CoP participation helped individual - learning &amp; knowledge sharing</th>
<th>helped individual - motivation &amp; commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP addresses business issues*</td>
<td>0.51</td>
<td>0.48</td>
</tr>
<tr>
<td>CoP develops skills*</td>
<td>0.48</td>
<td>0.43</td>
</tr>
<tr>
<td>Funding for events*</td>
<td>0.47</td>
<td>0.50</td>
</tr>
<tr>
<td>CoP supports organizations goals*</td>
<td>0.45</td>
<td>0.42</td>
</tr>
<tr>
<td>Community has a target (yes)</td>
<td>0.36</td>
<td>0.41</td>
</tr>
<tr>
<td>Training for facilitators*</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>CoP has snr mgmt sponsorship*</td>
<td>0.30</td>
<td>0.33</td>
</tr>
<tr>
<td>CoP has financial support*</td>
<td>0.27</td>
<td>0.35</td>
</tr>
<tr>
<td>time spent as leader (days per week)</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Funding ($)</td>
<td>0.35</td>
<td>0.37</td>
</tr>
<tr>
<td>Accountable CoP leader*</td>
<td></td>
<td>0.32</td>
</tr>
</tbody>
</table>

* coded: 1-no extent, 5=great extent
** coded: 1=none, 5=very high

At Team/Dept/BU level in detail

<table>
<thead>
<tr>
<th>CoP helped team/BU level in detail</th>
<th>CoP helped team/BU - performance</th>
<th>CoP helped team/BU - knowledge sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP addresses business issues*</td>
<td>0.53</td>
<td>0.53</td>
</tr>
<tr>
<td>CoP supports organizations goals*</td>
<td>0.52</td>
<td>0.57</td>
</tr>
<tr>
<td>Funding for events*</td>
<td>0.47</td>
<td></td>
</tr>
<tr>
<td>CoP develops skills*</td>
<td>0.45</td>
<td>0.33</td>
</tr>
<tr>
<td>CoP has snr mgmt sponsorship*</td>
<td>0.44</td>
<td>0.40</td>
</tr>
<tr>
<td>Community has a target (yes)</td>
<td>0.44</td>
<td>0.47</td>
</tr>
<tr>
<td>Training for facilitators*</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Funding ($)</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>CoP has financial support*</td>
<td>0.33</td>
<td>0.40</td>
</tr>
<tr>
<td>time spent as leader (days per week)</td>
<td>0.31</td>
<td>0.45</td>
</tr>
<tr>
<td>Experience (years)</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>Sponsor expectation**</td>
<td>0.36</td>
<td>0.47</td>
</tr>
</tbody>
</table>

* coded: 1-no extent, 5=great extent
** coded: 1=none, 5=very high

Most significant correlations at individual (performance + learning and knowledge sharing + motivation & commitment) and team/department/business unit (performance + learning and knowledge sharing) level …
Correlation Analysis based on comparing Member-to-Member data (1286 samples)

### At Individual level in detail

<table>
<thead>
<tr>
<th></th>
<th>CoP participation helped individual - performance</th>
<th>CoP participation helped individual - learning &amp; knowledge sharing</th>
<th>CoP participation helped individual - motivation &amp; commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP motivation - solve daily challenges†</td>
<td>0.555</td>
<td>0.524</td>
<td>0.469</td>
</tr>
<tr>
<td>CoP participation - good practice†</td>
<td>0.554</td>
<td>0.582</td>
<td>0.554</td>
</tr>
<tr>
<td>CoP motivation - support daily activities†</td>
<td>0.547</td>
<td>0.516</td>
<td>0.493</td>
</tr>
<tr>
<td>CoP participation - problem solving†</td>
<td>0.511</td>
<td>0.521</td>
<td>0.497</td>
</tr>
<tr>
<td>CoP participation - information seeking†</td>
<td>0.504</td>
<td>0.512</td>
<td>0.445</td>
</tr>
<tr>
<td>CoP motivation - meet goals†</td>
<td>0.498</td>
<td>0.495</td>
<td>0.481</td>
</tr>
<tr>
<td>CoP participation - community project†</td>
<td>0.467</td>
<td>0.493</td>
<td>0.527</td>
</tr>
<tr>
<td>CoP motivation - learning†</td>
<td>0.445</td>
<td>0.525</td>
<td>0.465</td>
</tr>
<tr>
<td>CoP motivation - current developments†</td>
<td>0.426</td>
<td>0.500</td>
<td>0.425</td>
</tr>
<tr>
<td>CoP Integrated - Community Members†</td>
<td>0.407</td>
<td>0.453</td>
<td>0.431</td>
</tr>
<tr>
<td>CoP tools††</td>
<td>0.394</td>
<td>0.449</td>
<td>0.427</td>
</tr>
<tr>
<td>CoP goals†</td>
<td>0.381</td>
<td>0.435</td>
<td>0.43</td>
</tr>
<tr>
<td>CoP motivation - expand network†</td>
<td>0.360</td>
<td>0.441</td>
<td>0.540</td>
</tr>
<tr>
<td>CoP motivation - career development†</td>
<td>0.357</td>
<td>0.406</td>
<td>0.519</td>
</tr>
<tr>
<td>CoP Integrated - Line Managers†</td>
<td>0.356</td>
<td>0.358</td>
<td>0.399</td>
</tr>
<tr>
<td>CoP participation - Attending Events†</td>
<td>0.334</td>
<td>0.370</td>
<td>0.429</td>
</tr>
<tr>
<td>Ask questions (# per year)</td>
<td>0.306</td>
<td>0.243</td>
<td>0.217</td>
</tr>
<tr>
<td>Answer questions (# per year)</td>
<td>0.281</td>
<td>0.216</td>
<td>0.225</td>
</tr>
<tr>
<td>CoP Integrated - Snr Mgrs†</td>
<td>0.264</td>
<td>0.268</td>
<td>0.285</td>
</tr>
<tr>
<td>Time to participate†</td>
<td>0.262</td>
<td>0.308</td>
<td>0.305</td>
</tr>
<tr>
<td>CoP Integrated - Community Leaders†</td>
<td>0.244</td>
<td>0.279</td>
<td>0.235</td>
</tr>
<tr>
<td>CoP Roles - Members at Large</td>
<td>0.238</td>
<td>0.282</td>
<td>0.274</td>
</tr>
<tr>
<td>CoP Roles - Engaged Sponsor†</td>
<td>0.224</td>
<td>0.241</td>
<td>0.228</td>
</tr>
<tr>
<td>CoP Roles - CoP Leader†</td>
<td>0.212</td>
<td>0.231</td>
<td>0.246</td>
</tr>
<tr>
<td>CoP Roles - Core Members†</td>
<td>0.195</td>
<td>0.259</td>
<td>0.225</td>
</tr>
<tr>
<td>CoP Roles - CoP facilitator†</td>
<td>0.188</td>
<td>0.234</td>
<td>0.226</td>
</tr>
<tr>
<td>Tenure - CoP (years)</td>
<td>0.168</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td>Tenure - experience (years)</td>
<td>0.082</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Coded 1=no extent, 5=great extent
†† Coded 1=not useful, 5=extremely useful

### At Team/Dept/BU level in detail

<table>
<thead>
<tr>
<th></th>
<th>CoP helped team/dept/BU - performance</th>
<th>CoP helped team/dept/BU - knowledge sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP participation - good practice†</td>
<td>0.557</td>
<td>0.519</td>
</tr>
<tr>
<td>CoP motivation - solve daily challenges†</td>
<td>0.550</td>
<td>0.476</td>
</tr>
<tr>
<td>CoP motivation - support daily activities†</td>
<td>0.542</td>
<td>0.472</td>
</tr>
<tr>
<td>CoP motivation - meet goals†</td>
<td>0.507</td>
<td>0.480</td>
</tr>
<tr>
<td>CoP participation - problem solving†</td>
<td>0.478</td>
<td>0.470</td>
</tr>
<tr>
<td>CoP participation - information seeking†</td>
<td>0.470</td>
<td>0.433</td>
</tr>
<tr>
<td>CoP participation - community project†</td>
<td>0.460</td>
<td>0.443</td>
</tr>
<tr>
<td>CoP motivation - learning†</td>
<td>0.460</td>
<td>0.429</td>
</tr>
<tr>
<td>CoP tools††</td>
<td>0.454</td>
<td>0.460</td>
</tr>
<tr>
<td>CoP roles†</td>
<td>0.432</td>
<td>0.450</td>
</tr>
<tr>
<td>CoP Integrated - Line Managers†</td>
<td>0.401</td>
<td>0.381</td>
</tr>
<tr>
<td>CoP motivation - career development†</td>
<td>0.398</td>
<td>0.347</td>
</tr>
<tr>
<td>CoP motivation - expand network†</td>
<td>0.381</td>
<td>0.401</td>
</tr>
<tr>
<td>CoP participation - Attending Events†</td>
<td>0.332</td>
<td>0.318</td>
</tr>
<tr>
<td>CoP integrated - Snr Mgrs†</td>
<td>0.316</td>
<td>0.304</td>
</tr>
<tr>
<td>CoP integrated - Community Leaders†</td>
<td>0.307</td>
<td>0.312</td>
</tr>
<tr>
<td>Time to participate†</td>
<td>0.282</td>
<td>0.302</td>
</tr>
<tr>
<td>CoP Roles - Members at Large†</td>
<td>0.272</td>
<td>0.287</td>
</tr>
<tr>
<td>CoP Roles - CoP facilitator†</td>
<td>0.257</td>
<td>0.288</td>
</tr>
<tr>
<td>CoP Roles - CoP Leader†</td>
<td>0.249</td>
<td>0.254</td>
</tr>
<tr>
<td>CoP Roles - Core Members†</td>
<td>0.240</td>
<td>0.291</td>
</tr>
<tr>
<td>Answer questions (# per year)</td>
<td>0.234</td>
<td>0.148</td>
</tr>
<tr>
<td>CoP Roles - Engaged Sponsor†</td>
<td>0.234</td>
<td>0.250</td>
</tr>
<tr>
<td>Ask questions (# per year)</td>
<td>0.218</td>
<td>0.138</td>
</tr>
<tr>
<td>Tenure - CoP (years)</td>
<td>0.122</td>
<td>0.092</td>
</tr>
<tr>
<td>Tenure - experience (years)</td>
<td>0.084</td>
<td>0.080</td>
</tr>
</tbody>
</table>

† Coded 1=no extent, 5=great extent
†† Coded 1=not useful, 5=extremely useful
C) Understanding the results from the statistical analysis

**Correlation Analysis**
Almost ALL the independent variables from the CoP Member Survey correlated significantly with the Dependent variables. This simply served to tell us that the questions we asked are consistently viewed by the responders across all the CoPs as being associated with CoP performance.

**Multiple Linear Regression Analysis**
Linear Regression is a method of modeling the conditional expected value (e.g. dependent variables: individual or team/dept/bu performance) given the values of some other variables (independent variables: i.e. answers to questions on CoP Member and CoP Leader Surveys such as ‘Extent to which Funding is provided for Events’ or ‘Usefulness of IT Tools’). The advantage of Multiple Linear Regression analysis over correlation analysis is that it does allow us to look at cause and effect.

Multiple linear regression was selected because the dependent variable was considered to be continuous. The answer scale used for the dependent variable was no extent to a great extent. Ordinal regression was considered for the analysis but little difference was found in the results so the easier to interpret multiple linear regression was used. The dependent variable was approximately normally distributed, therefore ordinary least squares (OLS) was used as the estimator to estimate the coefficients.

**Sample size**
Given the relatively small size of the sample (especially in looking at Leader > Member data), missing data was excluded pair wise as opposed to list wise to maximize the amount of data used.

**What do the results of the Linear Regression Analysis tell us?**
Linear Regression Analysis provides is with the key predictors (independent variables) of the dependent variables.

Put simply, it helps us to determine where we should be investing time and money if we want to positively affect individual and organisational performance.

The statistical findings – shown as co-efficients – are shown in two ways: unstandardised and standardised:

*Unstandardised Co-efficients*
Shows – in real numbers – the impact that an increase of 1 point* on the independent variable will have on the dependent variable

- 1 point: from 3 = to some extent > 4 = to a significant extent
- 2 points: from 1 = to no extent > 3 = to some extent

The actual ‘point’ depends on the actual question. In most cases it is ‘to what extent 1-5’ but in some cases it may be measures of time e.g. days, weeks or years.

**Example: How increasing Funding for Events would impact Individual Performance**

How can we increase the extent to which our CoP supports Individual Performance?

The evidence suggests if you were to make changes to CoP activities such that the Leader of the CoP were to change their answer to the following question:

*To what extent is funding allocated to the following areas - Events?*

… from ‘some extent’ (3/5) to ‘a significant extent’ (4/5) …

… this would increase the extent to which CoP Members perceive the CoP to support their Individual performance by 0.37. For example, a CoP that members deem to support their Individual Performance at 3.50 out of 5, would increase the extent of its contribution to 3.87 out of 5.

**Example: How increasing Training for Facilitators would impact Team/Dept/BU Performance**

How can we increase the extent to which our CoP supports Team/Department/BU Performance?

The evidence suggests if you were to make changes to CoP activities such that the Leader of the CoP were to answer change their answer to the following question:

*To what extent is training provided for – Facilitators?*

… from to ‘no extent’ (1/5) to ‘some extent’ (3/5) …

… this would increase the extent to which CoP Members perceive the CoP to support their Team/Department/BU Performance by 0.51. For example, a CoP that Members deem to support Team/Dept/BU Performance at 2.60 out of 5, would increase the extent of its contribution to 3.11 out of 5.

**Standardised Co-efficients**

*Standardised Co-efficients* show – in a normalised way - the rankings from high to low in terms of the size of the predictor. Those with the highest standard co-efficient are the biggest predictors of improved performance. This allows for independent variables with different answer scales to be compared.

The tables show the predictors in order of the standardised co-efficients.

**Adj R-squared**

*Adj R2* shows how good a predictor of the dependent variable the independent variables are. This is rated at between 0 (low) and 1 (high). The closer to 1 the better the model is as
a predictor of the proportion of the variation in the dependent variable accounted for by the independent variables.

The Multiple Linear Regression Analysis model shows itself to be a good predictor of the dependent variables, particularly in analysing the Leader > Member Data. In each of the analyses at least 0.673 of the variance in the dependent variable was predicted. In the case of Team/Department/BU - Performance the adjusted R-squared was 0.859.

In other words the four factors identified by the model as predicting Team/Dept/BU Performance account for 85.9% of the variance in the outcome.

It is also a fairly good predictor of variance in the Member > Member Data with at least 0.490 of the variance in the dependent variable being predicted:

In other words the many factors identified by the model as influencing Individual – Performance account for 52.2% of the variance in the outcome.
D) Bibliography

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Swan, Scarbrough & Robertson (2002), The construction of ‘communities of practice’ in the management of innovation; Management Learning; Dec 2002; 33,4.

Thompson (2005), Structural and Epistemic Parameters of Communities of Practice; Organization Science; Vol 16, No 2.


### E) CoP Benchmark League Table

Below is the ‘CoP Benchmark League Table’ of all 52 CoPs surveyed showing variance of impact across different benchmark categories. The highest performing CoP (1) scored 4.31 out of 5.00 overall. The lowest performing CoP (52) scored 1.81 out of 5.00 overall.

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