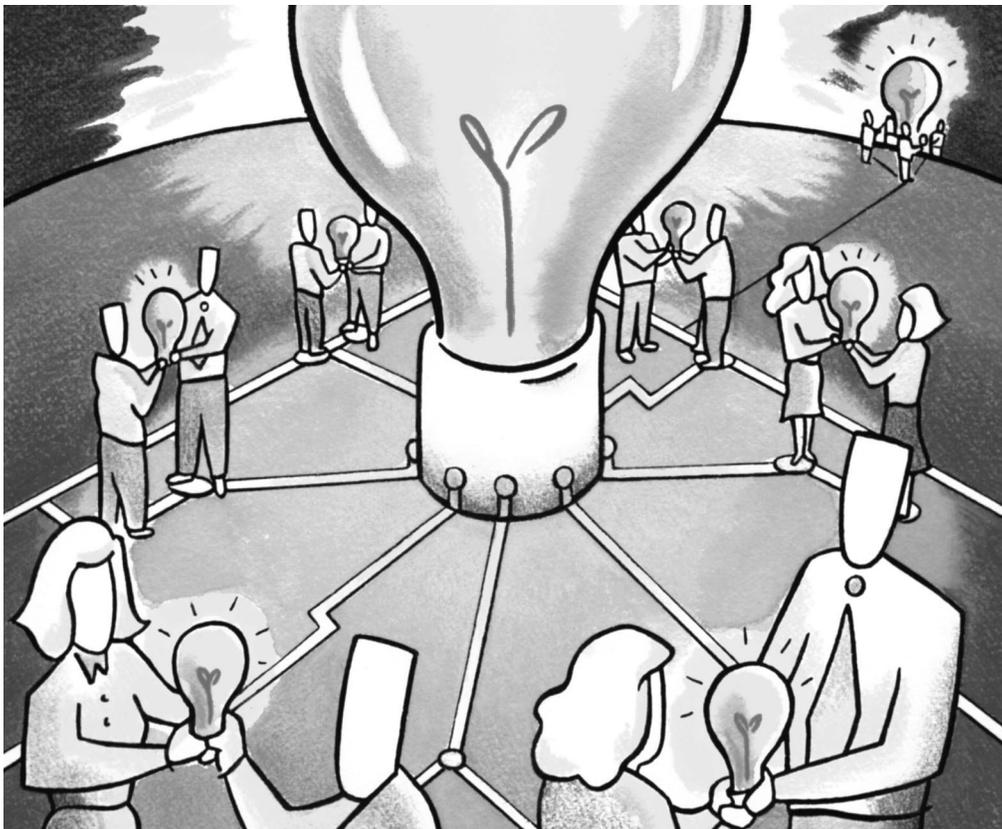


Creating a Knowledge-Sharing Culture

CONSORTIUM BENCHMARKING STUDY
BEST-PRACTICE REPORT



Project Personnel

Study Team

Alexandria Womack, Project Leader, Benchmarking Services
Stephanie Carlin, Benchmarking Services
Ryan Hunzeker, Benchmarking Services
Andrea Korth, Benchmarking Services
American Productivity & Quality Center

Subject Matter Expert

Dr. Richard McDermott
McDermott & Company

Contributing Authors

Stephanie Carlin, Alexandria Womack

Editor

Susan Elliott

Designers

Connie Choate, Eric Heisserer

Illustrator

Beth McCash

MEMBERSHIP INFORMATION

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ISBN 1-928593-17-8

STATEMENT OF PURPOSE

The purpose of publishing this report is to provide a reference point for and insight into the processes and practices associated with certain issues. It should be used as an educational learning tool and is not a "recipe" or step-by-step procedure to be copied or duplicated in any way. This report may not represent current organizational processes, policies, or practices because changes may have occurred since the completion of the study.

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Background information on the partner companies, as well as their innovative knowledge-sharing practices.

Sponsor Organizations

American Express

Astra Pharmaceuticals

Buckman Laboratories

Champion International

ENI

Equilon Pipeline Ltd.

GPU Energy

GlaxoWellcome

Hewlett-Packard

IBM Global Services

Lockheed Martin Corp.

Los Alamos National Laboratories

New York Power Authority

Nortel

Power Contracting & Engineering Corporation

PricewaterhouseCoopers LLP

Shell Exploration and Production

Siemens Automotive

Stentor

University of California

Xerox Corporation

Partner Organizations

*** Apple Computers, Inc.**

American Management Systems

Ford Motor Company

Lotus Development Corporation

*** Monsanto Company**

National Semiconductor Corporation

PricewaterhouseCoopers LLP

** Represented in quantitative data and company profiles only.*

Executive Summary

Today, knowledge is the most important product in most organizations. They are hiring minds, not hands, and knowledge is seen as a company asset. Consequently, organizations are seeking to create systematic ways to identify and convert individual expertise, skills, and experience into organizational knowledge.

While information technology is an enabler of knowledge-sharing processes, technology alone is not enough to ensure that people share and use each other's knowledge. A company's ability to use knowledge depends on how enthusiastic people are about sharing it.

Leveraging knowledge is possible only when people value building on each other's ideas and sharing their own insights. Much of this is shaped by the culture of the organization. The culture of an organization is the environment that influences behavior; decision making; and the organization's approach to markets, customers, and suppliers. It is the combination of shared history, expectations, unwritten rules, and social mores that affects behavior throughout the organization. Culture is the underlying beliefs that, while never actually articulated, are always present to color the perception of actions and communications. These beliefs are transmitted through everyday language and actions.

With this in mind, the American Productivity & Quality Center (APQC) conducted a consortium benchmarking study to discover how best-practice organizations facilitate and nurture an environment for knowledge sharing. By examining how leading organizations execute effective people strategies, we uncovered the potential benefits of human initiatives and exposed the pitfalls of relying too heavily on technology.

This study sought to uncover what organizations are doing to:

- tie the sharing of knowledge to their business strategy;
- build a culture that supports the sharing of knowledge;
- build awareness among employees of the value of creating, sharing, and using knowledge;
- develop and maintain human networks that share current knowledge and create new knowledge;
- share knowledge regardless of proximity through virtual collaboration and decision making; and
- address the "social side" of information technology.

STUDY SCOPE

The aim of this study was to dig beneath the information systems, organizational structures, stories, and proclamations that sharing knowledge is important and find the factors that actually shape behavior. The study sought to discover what draws people to be interested in, excited about, and motivated to share their own knowledge and build on the ideas of others. The study also set out to examine the negative consequences of not pushing people to share.

To understand what really drives people to share, the study examined corporate culture on three levels:

- the company's espoused philosophy, values, stories, structures, and systems;
- the behavior of people's peers and managers; and
- deeper core company values.

By looking at these three levels, the study sought to learn not only how best-practice organizations talk about sharing knowledge but also what they actually do to encourage knowledge-sharing behavior.

Drawing from the literature on knowledge management, culture, and organizational change, the study team identified six key factors that influence people's willingness to share knowledge. These six elements guided the design of the data collection instruments and were the basis from which the findings were derived.

1. Knowledge Sharing and Business Strategy

Knowledge management is a popular current business initiative, and many assert that sharing knowledge is worth doing for its own sake. However, successful businesses are predominately driven by focusing on clear and limited goals. Accordingly, sharing knowledge is more likely to become embedded in people's behavior when it is tied to strategic business goals. Thus, the study team sought to explore how business strategy, knowledge sharing, and corporate culture intertwine.

2. The Role of Human Networks

Human networks are one of the key vehicles for sharing knowledge. These networks are typically composed of colleagues who share insights on topics they care deeply about. Frequently they lead to the development of close personal relationships through which people feel invited and obliged to contribute to each other's thinking and development. Consequently, the study team expected that best-practice organizations would be laced with human networks and wanted to identify the impact they have on the organization as a whole.

3. The Role of Leaders and Managers

The behavior of leaders, particularly senior leaders, often has a strong impact on others in the organization. Leaders influence others directly by the expectations they set for others in the organization. Moreover, they influence people indirectly as role models. Thus, the study team wanted to understand how critical the role of senior leaders and mid-level managers is in drawing people to share knowledge.

4. Fit with the Overall Culture

One of the most powerful influences of behavior is the culture that already exists in the organization, specifically the core beliefs and assumptions of the organization. These are particularly influential because they are often invisible to people in the organization. They are the “seen but unnoticed” background against which people act. Changing these core values is extremely difficult. Accordingly, the study team sought to understand how core values affect people’s willingness to share knowledge and how efforts to increase knowledge sharing link with these core values.

5. Knowledge Sharing and Daily Work

Simple as it is, making it easy to share knowledge can be an important factor that drives how much and how well people actually share. For example, knowledge databases that are hard to get to or navigate are often not well used. Because building knowledge sharing into everyday work can make it routine enough to become a habit, the study team sought to learn how strong a factor this is in shaping people’s behavior.

6. Institutionalizing Learning Disciplines

Organizations often emphasize the importance of rewards, recognition, training, and practice—activities that reinforce the disciplines of sharing, documenting, and checking the ideas of others. While these activities may not motivate people to share their knowledge, they often reinforce knowledge-sharing behavior. They can push people to continue or increase what they do to share knowledge. Thus, the study team sought to learn how these activities impact knowledge-sharing behaviors.

KEY FINDINGS

Our interviews and quantitative data confirmed that the six factors we identified influence behavior, though to different degrees. Accordingly, the findings are organized using these six factors. These key findings will be explored in detail throughout the remainder of the report.

Section One: Knowledge Sharing and Business Strategy

1. Best-practice organizations share knowledge to solve practical business problems or achieve specific business results.
2. At best-practice organizations, people can see the connection between sharing knowledge and the business purpose—and this level of understanding is increasing.

Section Two: Fit with the Overall Culture

3. Knowledge sharing is tightly linked to a core cultural value of the organization. Sharing knowledge simply enables people to pursue that value more fully.
4. The style of each knowledge-sharing approach closely matches the style of the organization as a whole.
5. At best-practice organizations, there is strong management and peer pressure for people to help each other, collaborate, and share their knowledge. People who do not share are ignored, fail to be promoted, or are “siloed.”

Section Three: Fit with Daily Work

6. Best-practice organizations integrate knowledge sharing with people's work by holding visible knowledge-sharing events and/or embedding knowledge sharing in routine work processes.

Section Four: The Role of Leaders and Managers

7. The level of management support for knowledge sharing is commensurate with the scale of the overall knowledge-sharing effort.

Section Five: The Role of Human Networks

8. Best-practice organizations enable informal networks without formalizing them.
9. Human networks, whether formal or informal, have a facilitator who "owns" the network and actively ensures that people participate.

Section Six: Institutionalizing Learning Disciplines

10. Best-practice organizations see the need to align reward and recognition with sharing knowledge.

CONCLUSION

The study findings demonstrate that there is no one right set of motivators to encourage people to share insights and build on the ideas of others. Instead, what draws people to share is different in various organizations and matches the company's core values as well as the look and feel of other organizational processes.

Specifically, what draws people most strongly to share knowledge is:

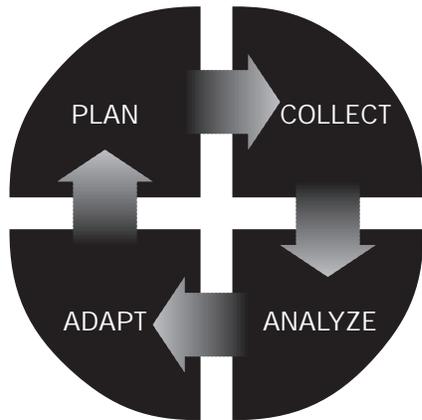
- *Alignment with the current culture:* By linking with a core company value, matching the look and feel of other organizational processes, and building on the value of collaboration, best-practice organizations make sharing knowledge a natural step.
- *A practical purpose to share:* Best-practice organizations do not value sharing knowledge for its own sake. Instead, these organizations share knowledge to achieve a business goal or solve an important business problem. Moreover, the value to the individual who uses the knowledge is actively and directly reinforced. This is done by rewarding people for contributing to the knowledge base or building knowledge sharing into everyday work processes.

METHODOLOGY

The APQC consortium benchmarking methodology was developed in 1993 and serves as one of the premier methods for successful benchmarking in the world. It is an extremely powerful tool for identifying best and innovative practices and for facilitating the actual transfer of these practices.

Benchmarking is the process of identifying, understanding, and adapting outstanding practices from organizations anywhere in the world to help another organization improve performance. Organizations participating in benchmarking activities

**APQC'S BENCHMARKING MODEL:
THE FOUR-PHASE METHODOLOGY**



report breakthrough improvements by directly and indirectly improving cost control, quality, cycle time, and profits.

The American Productivity & Quality Center conducted this benchmarking study on how innovative organizations successfully create a knowledge-sharing culture. Dr. Richard McDermott provided subject matter expertise for this study. Sponsors directed the scope, selected best-practice organizations to site visit, and financially supported the study.

The APQC staff used its benchmarking model, as described below.

Phase 1: Planning

The planning phase began in July 1998 with an extensive review of secondary literature to identify organizations possessing innovative practices to encourage the evolution of a culture that shares knowledge. The APQC project team assimilated this information and distributed it to the sponsoring organizations in October.

During the study kickoff meeting in October, the sponsor organizations solidified the study scope. The sponsors also developed the data collection tools for use in examining innovative organizations and prioritized a list of organizations identified in the secondary literature as having strong knowledge-sharing cultures.

Finalizing the data collection tool and piloting it within the sponsor group concluded the planning phase.

Phase 2: Collecting

The data collection phase of this study had two distinct objectives. The first was to collect quantitative data for the benchmarking consortium via a metric survey. The second objective was to focus on learning from selected innovative organizations by extracting rich, process-specific information concerning innovations in the study focus areas through site visits. Qualitative data were collected using a site visit guide.

Objective 1: Collecting Quantitative Data

Based on the results of secondary research and input from the sponsor group, the study team developed a list of best-practice candidates and invited them to participate as “partners” in the study. Seven organizations served as best-practice partners. These organizations, along with the sponsoring organizations, completed the metric data collection tool.

Objective 2: Learning from the Best

The study team invited five of the best-practice partners to continue sharing information in December–January 1998–1999 by hosting four-hour site visits at their respective locations. The five organizations selected to host site visits were:

- American Management Systems,
- Ford Motor Company,
- Lotus Development Corporation,
- National Semiconductor Corporation, and
- PricewaterhouseCoopers LLP.

The site visit discussion guide of the data collection tool provided structure for each site visit.

Phase 3: Analyzing and Reporting

The APQC project team analyzed data collected from the two portions (quantitative and qualitative) of the data collection tool. The analysis concentrated on identifying critical success factors and key enablers necessary for outstanding implementation practices. Analysis of participant data formed the basis for the final report. Analyses were conducted on each group (sponsors and partners).

On March 10 and 11, 1999, the APQC benchmarking team and the subject matter expert presented the study findings to study sponsors and partner organizations. All organizations participating in the study received a copy of the final report.

The presentation focused on the key learnings of the benchmarking project. This final report showcases all key findings, critical success factors, and enablers identified in the research process.

Phase 4: Adapting

Adaptation and improvement from the best practices identified throughout a consortium study occur after the sponsor company representatives take the study learnings back to their organizations. APQC staff members are available to help sponsors create action plans appropriate for their organizations based on the learnings.

SUBJECT MATTER EXPERTISE

As is standard with APQC's consortium benchmarking studies, this study employed subject matter expertise. Richard A. McDermott, Ph.D., served as subject matter expert (SME) for this study.

President of McDermott & Co., Dr. McDermott advises organizations on how to improve the way they apply knowledge, learning, and expertise. For the past several years, he has helped companies develop corporate knowledge management strategies and build local and global communities of practice. Dr. McDermott has 17 years of experience consulting on organizational design and change. His clients include Shell Oil Company, Hewlett-Packard Company, Celestica, The World Bank, Ben and Jerry's, General Motors, Digital Equipment Corporation, General Electric, and New England Telephone.

Prior to starting McDermott & Co., Dr. McDermott worked in the corporate education department at Polaroid Corporation, where he designed management development programs and experienced firsthand the dilemmas of being a knowl-

S U M M A R Y

edge worker. Dr. McDermott also served as a research assistant at the Harvard Business School and was a faculty member at Lesley College, where he taught on the subjects of management, organizational behavior, and organizational change.

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