

Knowledge Management Best Practices

Turning Information into a
Corporate Asset for Call
Centers, Help Desks and Other
Support Environments

The most effective knowledge management systems are able to access information from multiple documents and databases, capture it in a centralized knowledgebase, and continually improve it for ongoing use by individuals seeking answers. Typically, these individuals comprise the support agents in customer support environments, as well as the customers, employees, partners, and/or vendors they serve. This paper draws on our decade of implementing knowledge management systems for support organizations large and small to discuss the six best practices to success.

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As such, support centers are the perfect microcosm for successful knowledge management initiatives. Not only are they the most rigorous question-answer environment in the company, but they also record problem-resolution times, which helps measure the effectiveness of knowledge management technologies. Beyond this, support centers face increasing pressure to offset costs with self-service options that can deliver complete, accurate answers via the web.

In the past, however, knowledge management systems have failed as often as they have succeeded. This paper draws on our decade of implementing knowledge management systems for support organizations large and small to discuss the six best practices to success.

What is Knowledge Management?

Knowledge management has enjoyed increasing popularity in recent years, but as a term it often means different things to different people. For the sake of discussion, we will draw from Thomas Davenport, the prolific author of several works on the subject including, *Information Ecology: Mastering the Information and Knowledge Environment* and *Working Knowledge: How Organizations Manage What They Know*.

Generally speaking, Davenport defines knowledge as what happens at the moment in time when information becomes valuable to the individual seeking it. In call centers, help desks, and other support environments, that individual is either the support agent seeking information to help a customer, or a customer (product user, employee, partner, or vendor) seeking answers in a web-based self-help environment.

In either case, effective knowledge management systems are able to access information from documents and databases across the organization, capture it in a centralized knowledgebase, and continually enhance it for ongoing use by individuals seeking answers. In the past, however, knowledge management systems have failed as often as they have succeeded for several reasons:

- In addition to their regular work, knowledge workers were expected to do extra work to support the knowledge initiative and maintain knowledge management processes.
- Knowledge workers were unable to access information when they needed it, because information was dispersed throughout the organization in inaccessible silos. In cases where they could access it, poor search technology typically returned irrelevant results. Yet, the time and effort required to recreate that information was prohibitive.
- The process of improving the body of knowledge that already existed in the organization through protracted knowledge engineering or quality assurance processes severely undermined the value of knowledge initiatives.
- Knowledge initiatives, which were seen as a technology initiative for a single department, lacked the large-scale management visibility and organizational endorsement necessary for long-term success.

Why are support centers ideal environments for knowledge management?

There are three reasons why the support environment — as defined by call centers, help desks, human resources groups, and other support organizations serving customers, employees, partners, and/or vendors — is the perfect microcosm in which to identify best practices for a successful knowledge management initiative.

First, support groups, particularly call centers and help desks, are the most rigorous question-answer environment within any organization.

Second, most call centers and help desks record the time it takes to successfully solve an issue or answer a question, which in turn helps evaluate the effectiveness of the technologies and processes being used.

Third, in today's support center, there is a need to provide self-service options, in which customers find their own answers via the web or in which the web-based question-answer process is assisted by a support agent when needed. Both self- and assisted service, require that the most relevant information reaches the user in as few steps as possible.

How can support centers succeed with knowledge management initiatives?

In nearly a decade of implementing knowledge management systems for support organizations of all sizes, we have found six keys — or best practices — to success:

- Knowledge access, capture, use, and improvement are a natural part of the support center's work processes.
- Existing information throughout the company — even from isolated silos — is available to the people seeking it.
- Executives actively support the knowledge initiative and commit the necessary resources to ensure long-term success.
- Management recognizes that knowledge-based support may entail a shift in cultural values and facilitate the transition.
- The knowledge initiative rewards knowledge workers for their participation.
- The knowledge management system includes analytical tools to report results and document areas that need improvement.

What follows is a fuller discussion of each of these six best practices.

Best Practice 1

Make knowledge management a natural part of the workflow.

“The review team looked at multiple systems. . . . The solution we chose gave our call center agents the ability to update the knowledgebase in real time, so new solutions are immediately available on a global basis — a real value for the engineers. Solutions could be drafted, developed, and quality-checked within the workflow and simultaneously made available for access and reuse”

— Angela McAllister, *Manager of eServices and Knowledge Technologies, 3Com*

Many software initiatives have failed because of the increased burden placed on the users they were intended to help. Where they promised efficiency, they have often resulted in more work. This has certainly been the case for many support centers adopting knowledge management initiatives, where extra work for an already overtaxed workforce has resulted in poor user adoption and, ultimately, in disappointing results.

For a support center to succeed with knowledge management, the solution must mimic the natural work processes of the support agents, whereby knowledge is accessed, captured, and improved as an intrinsic part of how agents interact with customers to solve problems. In other words, the software not only assists an agent for the problem at hand, but extracts additional knowledge from the interaction to improve content for subsequent interactions.

To show how knowledge-based support works, we'll use a typical call center example in which a customer calls about a software problem. As the level 1 agent prepares to find a suitable solution, he or she gathers information about the exact nature of the problem and enhances the description of the problem presented by the caller. To expedite this process (and narrow the range of possible solutions), the system prompts the agent to get the basic details, such as the product model number and computer operating environment. The agent may or may not find the answer from existing solutions in the knowledgebase, but either way, the problem has acquired more context for the next customer interaction on the same subject.

If, in fact, there is no existing solution, the level 1 agent escalates the problem to a higher level agent. Using the enhanced problem description added by the level 1 agent, the expert agent troubleshoots the problem, provides the solution, and commits it to the knowledgebase for access by level 1 agents next time the problem arises. As a best practice, each step is integrated with the standard tasks that each agent would have done anyway to solve the customer's problem. In other words, the knowledge management system has managed the process as a by-product of that interaction and added value to the existing body of knowledge to benefit subsequent agents and callers.

Best Practice 2

Provide access to the most relevant knowledge available.

"[We wanted] the ability to capture our solutions in one database that could be shared between level-two and level-three engineers, . . . capture and share the knowledge of one of our key partners, . . . provide our field technicians with a self-help application and prevent our high-end engineers from answering technical problems that were already identified and documented."

— Paul Comeau, Executive Director, Technical Assistance Centers, NextiraOne

Many support centers function in an information vacuum, incapable of accessing valuable information that already exists in other departments, in corporate databases, from business partners, or in publicly available documents. For most companies, potentially valuable information exists in multiple locations in multiple file formats, both within and outside the enterprise.

Without access to this information, the support center is faced with the daunting task of creating and continuously updating a body of knowledge to solve customer problems quickly, efficiently, and accurately. Apart from the significant duplication of effort that manual knowledge-creation requires, the effort often leads to missing, outdated, and/or erroneous information. Furthermore, in cases where access to existing information is possible, search technologies often aren't rigorous enough to satisfy the demands of support agents, who are forced to sift through multiple semi-relevant documents to find the most appropriate problem-solving information.

As a result, knowledge management systems must have the ability to pull valuable information from a wide selection of existing sources in a wide variety of file formats, such as Microsoft Word (.doc), Excel (.xls), or Powerpoint (.ppt), Adobe Acrobat (.pdf), and web pages in HTML (and increasingly XML). The system must also be able to access different types of databases, such as Lotus Notes, ODBC-compliant databases, or even legacy systems. Such interoperability ensures that people can take advantage of content that has already been developed and approved for user manuals, employee handbooks, partner extranets, marketing communications, and a host of other sources.

In addition to information access, the knowledge management system must be able to quickly retrieve the most relevant information from the available content. Although today's search engines allow users to type queries in everyday language, word meaning, word order, and sentence structure are of little consequence when the search engine's only purpose is to retrieve documents based on keyword searches.

Efficient support organizations, and the people they serve in web-based self-service environments, require complete, precise answers to questions. As a result, successful knowledge management technologies must be able to fully process natural language, interpret the meaning of words in the context of the question, identify the intent of the question, rank possible responses, and return only the most relevant solutions.

Best Practice 3

Obtain the support of key managers from the top down.

The biggest factor in the success of a knowledge-management initiative is a culture that embraces accountability . . . the support of the executive team, and the harmony between the concept of knowledge management and [the company's] core values.

— *Based on an interview with Matt McCabe, Director of Customer Service, dynamicsoft*

Successful implementation of a knowledge management system requires executive-level support of the initiative. At minimum, this involves a vision for knowledge management in the support environment, well-articulated goals and requirements, and financial and resource commitments to ensure long-term success.

To succeed in obtaining executive support, knowledge management advocates should develop a well-defined project plan that includes:

- Resource requirements
- Individual and departmental roles, responsibilities, and lines of authority
- Accountability processes
- Inherent risks and risk-management plan
- Implementation steps, timelines, and dependencies
- Communication strategy for project members, knowledge workers, and supervisors, and senior managers

Once management has embraced and, ideally, evangelized the plan, executives and/or senior managers must also be part of the review process for evaluating progress and results, with specific emphasis on the company's return on investment (ROI).

Best Practice 4

Address the cultural change that knowledge management implies.

"[Knowledge management] is not just a tool-set it's a cultural revolution. The major implementation hurdle in a knowledge-sharing system is not the technology. It is getting people used to it. Sharing ideas freely is one thing when you are at a physical meeting and can see reaction. It is another when you are working electronically. . . ."

— *Gig Griffith, Manager of Business Operations for Technical Services, Novell*

"What most organizations don't realize is that they already have the ingredients of a knowledge culture. People are, by nature, social beings who spend much of their work day talking to each other, passing along information, and transferring knowledge in formal meetings. Much like communities of good friends, companies are made of knowledge communities, groups of employees who band together around work issues."

—*Karen L. Case, Consultant, Knowledge and Content Management Group, IBM*

Recognition of the cultural issues is as key to the success of a knowledge initiative as the implementation of the right technology. In many companies, a knowledge-based support organization requires a cultural shift, a migration to an organization whose people are open and willing to share what they know with others in a more systematic way than what they may be used to.

Staff and managers unaccustomed to using a knowledgebase and actively participating in its development must be educated about its value and shown the disadvantages of keeping knowledge to themselves, either for their own gain or because it doesn't occur to them that it might be useful to others. This involves frequent coaching, ongoing recognition, feedback on efficiency gains and personal contributions, and leaders who set an example of actively communicating information to those who can benefit from it.

Best Practice 5

Recognize and reward the efforts of knowledge participants.

"[We] certify engineers at three levels of expertise Certifications and performance milestones appear in [a] monthly newsletter, [which] also . . . recognizes engineers for most reused solutions, and tracks knowledgebase activity, such as the number of customers solving their own problems via the web."

— *Based on an interview with John Swindlehurst, Customer Service Knowledge Engineer, Concerto Software*

In successful knowledge management implementations, individual participation and organizational commitment are reinforced through incentive programs aligned to performance goals and milestones. The performance management strategy should include a system for motivating initial participation, rewarding individual contribution, recognizing exceptional accomplishments, coaching reluctant agents, and addressing areas of weakness.

Incentives, rewards, and recognition can take many forms — executive acknowledgement at company meetings, publication in the organization's newsletter, movie tickets, dinners out, public charts tracking participation, metrics showing the reduction in call times or the rise of self-service activity, and more. Whatever the organization decides, incentives and rewards should be of real value to the recipients and visible to senior management.

Best Practice 6

Monitor performance and analyze results for continuous improvement.

“One reason the knowledgebase has become a natural part of the workflow has to do with ‘systems thinking.’ The help desk . . . integrated the knowledgebase with their Avaya CTI and Peregrine call tracking systems . . . to analyze the customer experience. Instead of focusing only on the technical solution, we wanted to look at the process, at why and how calls were getting resolved so that we could understand why others weren’t.”

— Keith Amey, Operations Manager, Fujitsu Services, The Fujitsu Group

Successful knowledge management depends on a committed group of knowledge workers, which in turn requires the support center to track performance, measure results, and report findings. Ideally, quantifiable results are broadcast weekly to the executives, teams, and individuals. Participants at every level must be able to see evidence of the cumulative benefits so they actively participate and continuously improve the knowledge available to both agents and users of web-based self-service options. Beyond this, visible progress ensures that the knowledge initiative will likely receive the necessary resources for long-term success.

Typical metrics that encourage executive support revolve around the calculated value of achieving each goal. In other words, executives want to see the ROI – the dollar savings that result from:

- Fewer escalations
- Increase in the number of tickets closed and the speed with which the problems were resolved
- Increase in the number of problems solved via intranet- or web-based self-service options

Typical metrics that encourage individuals to become knowledge enthusiasts highlight personal achievements. In other words, to understand the value of knowledge-based support, knowledge workers need to see how they are personally helping others, for example:

- The percentage of call tickets that were closed using knowledgebase solutions they had something to do with
- The percentage of problems that were solved using existing knowledgebase solutions vs. solutions that had to be newly created
- The number of solutions they personally improved vs. the team as a whole

In addition to developing committed executives and enthusiastic knowledge workers, performance tracking and analysis helps organizations understand gaps in available information and the value of existing information to the people using it. Given the option, knowledge workers will spend their time creating or improving information that fills the expressed needs of their constituents.

Unfortunately, it is difficult to aggregate and analyze the types of information that users find most valuable. Some information archiving technologies can discern the least valuable information by reviewing the dates it was accessed, but they cannot direct knowledge workers to where they should expend their efforts. The best knowledge management technologies are able to identify not only the most used information, but the types of information that users ask for but aren't available.

Finally, performance tracking and information analysis must also aggregate the results of self-service and assisted-service offerings via the web, corporate intranet, or extranet. In the self-service environment, organizations can learn a great deal by analyzing the questions asked and the answers returned. Support centers that understand the top questions asked for which no satisfactory answer was found can direct the efforts of their support agents to creating content that responds directly to demand.

In the assisted-service realm (one that starts on the web but escalates to a live agent if no answer is found), the best analysis tools identify the information most important to the users, the quality of the information being provided, and those topics that are generating the most escalations to the support center.

Is knowledge management the only answer?

In recent years, Gartner, Forrester, IDC, and other industry research groups have clearly, and repeatedly, documented the value of knowledge management to call centers, help desks, and other support environments. In addition, knowledge-based support is being seen as the best way to ensure successful self-service for customers, employees, partners, and vendors via the web. Research suggests that, without a viable self-service strategy, organizations will be hard-pressed to meet the demand for high-quality, flexible service in an era dominated by competitive alternatives for dissatisfied customers.

But, despite advances in information technologies, successful knowledge management is much more than a user interface wired to information databases. It is an attitude, a way of life, and an approach to customer service that believes all questions can be answered, all problems solved without expanding, or overtaxing, existing resources. Instead, successful knowledge management initiatives follow the six best practices described above to make use of what already exists — valuable, if fragmented, information available for service (or, packed with answers) and skilled individuals ready to assist where they are most needed. Arguably, only through knowledge management can a company meet the exacting standards of their customers, employees, and partners for fast, accurate, and relevant support anywhere, any time.

The quotes cited above from managers or former managers at 3Com, NextiraOne, dynamicsoft, Novell, Concerto, and Fujitsu are taken from Primus case studies. IBM's Karen Case's quote is taken from Volume 1, Number 2 of Primus' newsletter, Primus Knowledge Insights. The complete case studies and newsletter articles are available from their corresponding links on the home page of www.primus.com.

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