

Knowledge Management for Customer Service

Ingredients for Success



As enterprises increasingly use customer service to differentiate themselves, knowledge management has gained prominence as a strategic initiative. A key enabler, it allows businesses to use their knowledge assets to provide better customer service. In this paper, we discuss the ingredients of success as it relates to knowledge management strategy, technology, people, and processes.

What is knowledge management?

Like many emerging business processes rooted in technology, knowledge management is defined somewhat differently by different organizations, and by different individuals within those organizations. Some organizations see knowledge management as a form of document management—a system that lets engineers share design data, consultants share best practices, and so on. To customer service and call center managers, it may mean a simple, searchable database or a sophisticated, guided problem-resolution tool. We take a broader view of knowledge management and define it as *a set of practices that maximizes the business value of knowledge by gathering, structuring, and delivering it at critical points of customer interaction.*

Knowledge management systems are not by nature “married” to any particular channel of communication. In fact, to be fully effective over the long term, they should offer the possibility of access by call center agents, web agents, customers and partners (via web self-service), or by any combination of the above. In other words, knowledge should be a multi-channel resource.

Knowledge management systems are typically deployed to achieve specific, measurable goals in one or more of the following areas:

- **Lower service cost:** Knowledge management helps companies lower the cost of customer service by reducing repeat calls, call handling and wrap-up times, and agent training, and by maximizing the ability of Level 1 (L1) agents to solve problems. Improving the performance of L1 agents not only enhances the net efficiency of call center staffs, but also gives companies access to a bigger labor pool, because there is a reduced need to find

individuals who have both interpersonal skills and domain knowledge. Finally, knowledge management can enable companies to divert a significant amount of traffic to web self-service.

- **Improved service:** Knowledge management also leads to better quality of service. Customers are more likely to receive the right answers faster, with no need to be put on hold or transferred to another agent. And, the value of superior customer service, of course, is enormous. A survey conducted by call center expert Dr Jon Anton for his most recent book, *eBusiness Customer Service* revealed that customers who buy a product with problems but receive “world-class” customer service while resolving the problem are more than twice as likely to repurchase from the company than customers who buy a perfect product with no problems at all.
- **Consistency in service:** Without a knowledge management system, it is very difficult for an enterprise to know the responses customers receive, much less control them. Knowledge management ensures that customers with the same question receive the same response, regardless of agent, interaction channel (phone, web, email), or interaction mode (self, assisted, or proactive service). Once consistency has been achieved, it is then possible to fine-tune responses and thereby boost efficiency and quality even further.
- **Other results:** Improved customer service often produces results in other operational areas. For example, a prominent British telecommunications company is now saving over one million pounds per year in reduced handset returns by doing a better job of identifying customers who mistakenly think their phone is broken, when in fact they don't know how to use it properly.

Strategic considerations

It is evident that knowledge management can help companies improve service quality while reducing costs. However, there are other business situations in which knowledge can play a critical role:

- **Outsourcing:** When a company decides to outsource customer service, it is not a simple matter to train a whole new crew of agents on the intricacies of an unfamiliar product line. Knowledge management can make the

transition virtually painless, while significantly lowering the cost of training. This factor can be used as a negotiating point to lower the price of outsourcing contracts.

- **Merging two call centers:** This challenge is in many ways similar to outsourcing, in that a large number of agents often need to be trained in areas that are completely unfamiliar to them. Knowledge management can enable the creation of a central repository for all knowledge required for both groups, ensuring a consistent approach to problem resolution.
- **Transforming a service force into a sales and service force:** The agents who are best at service and support don't necessarily do well converting support calls into sales. The knowledge system, while guiding agents in analyzing customer problems, can suggest specific selling opportunities for complementary offerings and provide agents the scripts and information needed to present those offerings to customers. In this case, the knowledge system not only provides "the right answer," but actually helps the agent sell.
- **Extending call centers to the web:** As the web becomes an increasingly important touchpoint for customers, enterprises must understand the important role knowledge management can play in web-based interactions. Though telephone calls are still the most popular channel of interaction for customers, accounting for 75% of all interactions, Internet-based interactions (email, web self-service, live web sessions and voice-over-IP) already account for the other 25% and are growing in importance.

Most enterprises are likely to end up with multi-channel customer response systems and will have to allow cross-channel escalations. Obviously, one of the most important strategic considerations is ensuring that knowledge management systems are available for both the telephone and online channels.

There are also important integration issues to consider. For example, most email management systems provide for some level of templated response, which agents can accept, tailor, or reject in favor of a customized response. This is an area where knowledge management can play a major role if it is integrated into the larger email management solution.

Another customer interaction mode where knowledge management can play a role is self-service. Knowledge management is not so much about searching (e.g. What's the address of your New York office?) as it is about

solving (e.g. Which mutual fund should I buy?). It is ideal for guiding users, via a series of questions, to problem resolution. In fact, it can be used to guide individuals through virtually any set of sequential steps required to perform a specific task. For example, when someone dies in the United Kingdom, the next of kin must go through 26 different steps to achieve legal closure. The British government has deployed a knowledge management system to help citizens navigate through this complex process.

The bottom line is that knowledge management is also a strategy, not just a tactic, and it is a set of business practices, not merely a technology. There is no question that strong, active support from upper management is crucial to the success of a knowledge management deployment, particularly in the beginning. More deployments fail due to the lack of management commitment than for any other cause.

Measuring ROI

In the current economic climate, projects must demonstrate compelling ROI in order to obtain funding, and knowledge management is no exception.

Knowledge Management provides three categories of economic value:

1. In typical call center implementations, it results in **better efficiencies**. The applicable metrics, along with typical results (derived from eGain customer case studies), are listed below. All of these parameters can be easily measured by most call centers.

Metric	Typical Result
Repeat Calls	-30%
Incorrect Transfers	-30%
Call Avoidance	+16%
End-to-End Call Length	-30%
Training Time	-80%
Staff Premiums	-15%
First Time Fix	+24%

2. The second category applies to implementations where knowledge management is used not only to support call center agents, but also to serve as the engine for web self-service. Companies that offer web-based self-service have been able to achieve significant ROI by reducing incoming phone calls.
3. The third category is often the hardest to measure, particularly in the short run, although for some companies it provides the greatest value. This category comprises the following:
 - **Reduced customer churn:** The increasingly complex nature of products and services has meant customer frustration and, often, defection. A common reason for the large churn rates in high-technology services such as satellite TV and mobile telephone is that customers simply don't understand how to use these services correctly. Knowledge management can enable agents to educate customers during service interactions, ("By the way, did you know that you can go back to the beginning of a voice mail message by hitting *7?") Education reduces frustration and can help build, if not loyalty, at least an acceptable level of customer satisfaction. Unfortunately, as churn rates are affected by numerous factors, including some that are totally beyond a company's control (such as fluctuating relocation rates), it is difficult to measure the effect of customer service on churn. However, it is possible to measure the rate of recapture—the percentage of unhappy customers who call in to cancel their service and are successfully talked out of it—and assign a financial value to it.
 - **Repeat business:** As noted earlier, providing high quality customer service can boost repeat business. (See page 2.)
 - **Increased sales:** This includes revenue from up-selling and cross-selling. Knowledge management can be used to prompt agents to suggest specific products or services based on the nature of the dialog between the agent and the customer.

Deployment Best Practices

Gathering knowledge

The first challenge in the knowledge-gathering process is simply deciding what knowledge to gather. For example, while identifying the most frequently asked questions is critical for a self-service web site implementation, call centers will also need to know the most frequently escalated questions. Moreover, while management goals may center around ROI issues, the system must be designed with users in mind, or it will not be successful.

Here is a step-by-step review of the knowledge-gathering process.

Step 1: Building the team

There are four roles in the knowledge management team:

- **Lead expert:** The individual (or individuals) who decides how the knowledge base will be organized, which topics will be covered, and to what extent.
- **Users:** Call center agents who have good performance records and can provide suggestions.
- **Knowledge authors:** Individuals who are technically trained in using authoring tools.
- **Project manager.** The individual who keeps the project on track.

Depending on the scope of the project, one person may play several roles.

Step 2: Assessing the value of knowledge

The best way to determine what knowledge should be gathered is to estimate what the value to your enterprise would be if every agent managed service interactions by effectively using that knowledge. For example, if the ten most-escalated inquiries could be handled by L1 agents, how many fewer L2 agents would you need, and how much would that cut operating costs? When assessing value, it is also important to identify the questions which entail the most risk if answered incorrectly.

One approach to assessing the value of knowledge is to identify the various touchpoints in the customer life cycle and determine potential “churn points”—situations that may make customers switch to another company. This exercise also helps identify other opportunities to improve customer experience via knowledge management. Having identified the touchpoints that have the greatest potential value associated with them—either positive or negative—the second step is to determine the frequency of these churn points. High value and high volume situations deserve the most attention.

Step 3: Setting content boundaries

When defining the scope of the knowledge base, the most common mistake is to try to include too much. Overly ambitious deployments almost always result in what’s called “the Swiss cheese problem”—a knowledge base that is solid in places, but full of holes. This is a recipe for failure, because if users can’t find the answers they want most of the time, or get the wrong answers, they will quickly stop using the system. It is better to be thorough with a limited area than to cover a broad area superficially. For instance, for an enterprise that sells printers, scanners, fax machines, and copiers, the best approach would be to cover one product line thoroughly, rather than all products at once.

Step 4: Prioritizing objectives

Establishing the value of knowledge enables prioritization, but this process may involve trade-offs. For example, in a technology subscription environment like cable TV, Internet service provision, or mobile telephony, there are typically three competing goals:

- Speed of problem resolution (the “right answer” focus): The shorter the average duration of a call, the lower the cost to the enterprise.
- Customer retention: Educating customers about unused features can result in greater customer acceptance and lower churn.
- Up-selling and cross-selling: It may be that the best solution to a customer’s problem is selling that customer a higher tier of service or an add-on product.

Enterprises must match their knowledge systems and processes to the service priorities.

Step 5: Setting time boundaries

In our experience with many deployments, a time-boxed approach to knowledge gathering works best. If the deployment appears to be falling behind schedule, narrowing the scope of the knowledge base (to avoid the Swiss cheese problem) and finishing on schedule is the way to go. The reason has to do with ROI—the main reason for the deployment to begin with. The longer it takes to get the system up and running, the longer it takes to achieve the ROI. If the knowledge scope has been correctly identified and prioritized, the most important questions will be covered. Furthermore, it is always possible to expand the scope later.

As a rough guide, a typical enterprise deployment should not take longer than three months (after planning is done), with three or four full-time people engaged. This period includes software installation, knowledge gathering, and testing both the quality of the knowledge base as well as the performance of the system.

Step 6: Selecting and managing experts

Obviously, the people who contribute to the knowledge base must be technically competent, but it is equally important that they not be too far removed from day-to-day customer contact. Successful knowledge management depends as much on the questions as the answers, and it is sometimes difficult for subject matter experts to “stoop” to the level of ordinary customers who may not know complex details like the baud rate of their modem or whether their mutual fund is front-loaded or back-loaded.

There is another very important issue with experts: the reluctance to share knowledge and the fear of being “replaced by a machine.” It is important, therefore, that enterprises plan and communicate how the role of the experts will change once knowledge management has been implemented. Moreover, enterprises should create incentives for domain experts to share their knowledge with the rest of the organization.

Step 7: Controlling content

Once the knowledge gathering process has been completed, results must be reviewed in light of strategic objectives. It is critical for organizations to set up a review process for approving the final content of the knowledge base. This includes determining who (beyond the experts) should review the content, and

who has the authority to make final decisions. There are good reasons for not leaving these decisions to content experts alone. For example, any material an enterprise presents to the public can have legal or safety implications. One good approach to quality control is the use of workflow authoring software where agents (or customers and partners, in the case of self-service) can suggest additions or changes, but only authorized individuals can approve them.

Knowledge management is an ongoing process

Once in place, most knowledge management deployments follow a predictable pattern of dramatic initial success and glowing upper management support, followed by a period of decline, and then a gradual recovery and rise to greater levels of benefit, summarized in the graph below.

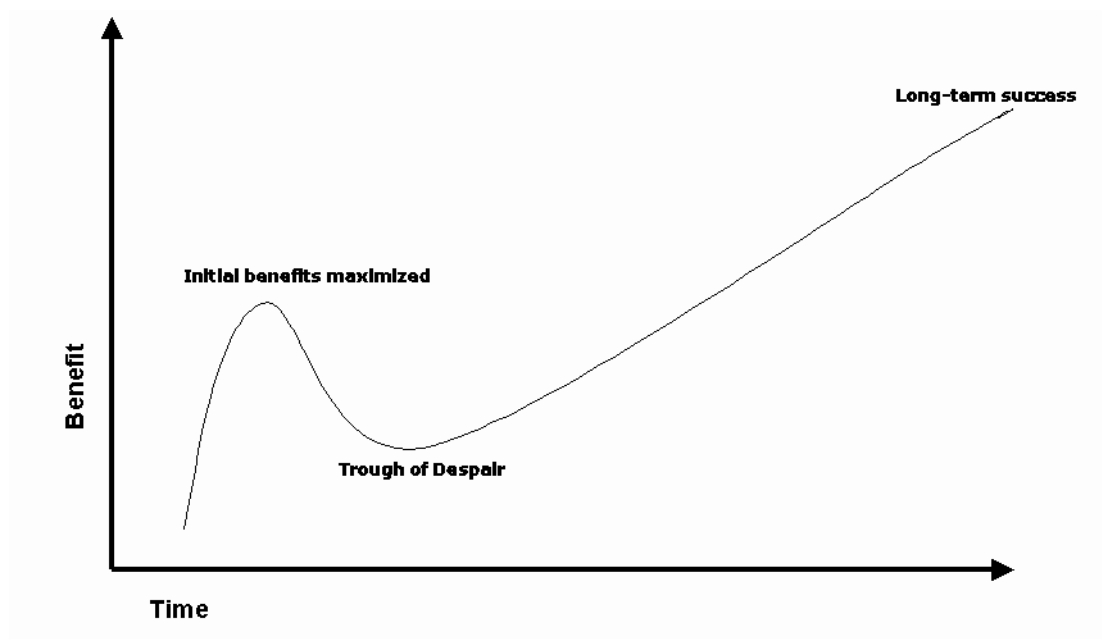


Figure 1: A typical experience with a knowledge solution

The primary cause for this pattern is diminished attention by management once the project has been launched, and failure to rigorously maintain and update the knowledge base.

This trend also reflects the nature of the problems knowledge management is designed to solve, the indirect training knowledge management provides to L1 agents, and the combination of short-term and long-term goals knowledge management is expected to achieve.

In a call center dealing with high turnover, with under-trained L1 agents and a chronic shortage of L2 agents to handle escalations, knowledge management will produce immediate short-term results apparent after a few weeks in the form of shorter hold times and call durations, lower call-back rates, fewer escalations and an overall improvement in customer satisfaction. Knowledge management will also yield long-term results, apparent after several quarters, in the form of shorter training cycles, more favorable customer-to-agent and L1-to-L2-agent ratios, and, in many cases, indirect results such as reduced churn.

In between the first blush of success and the realization of long-term goals, there is a period where short-term benefits are no longer increasing and it is too soon to use long-term metrics. This is the region of the graph labeled the “Trough of Despair.” This trough is usually characterized by a decline in system utilization rates. This may not be as alarming as it seems since it probably indicates that agents are improving in their ability to respond to customers. Nonetheless, under-utilization of any system is problematic, and this leads to the final factor in a successful knowledge management deployment: the need for long-term maintenance and change management. There are several areas that require ongoing attention in order to maximize the benefits of knowledge management, and some are more obvious than others. Overall, the most important thing to do is to plan for expansion and change of the original knowledge base. Here are some specific activities that can be expected after deployment.

Managing routine updates

The most obvious need for managing change has to do with routine updates required by the introduction of new products and services, as well as changes in existing products, services, or policies. There must be a simple and clearly understood procedure for making updates to the system. It is also important to routinely evaluate all knowledge items based on their creation and revision dates to make sure that they are still current. This should be a software-assisted effort.

Refining the knowledge base

As noted earlier, knowledge management ensures that all agents give the same responses to the same inquiries. Once consistency has been achieved, answers can be modified to improve success rates in some areas. For example, one large telecommunications company has discovered that a surprising number of mobile phone users who call to cancel their service can be recaptured. Modifying agent responses to specific customer complaints can yield significant ROI.

Expanding the scope

As we have discussed earlier, it is a good idea to get the knowledge management system up and running quickly with a limited scope. However, once a knowledge management system is working, expanding its scope will increase its benefits.

Creating multiple interfaces

One of the key goals of knowledge management is to help L1 agents behave more like L2 experts. However, because knowledge management systems do in fact train L1 agents as they provide service, a significant percentage actually become experts, or at least move in that direction. When this happens, they are much less likely to use the knowledge management system. Although this is a benefit, lower system utilization is always problematic. One way to address this issue is to create a second interface for agents who are no longer beginners. However, there will always be agents at the L1 level because of new or changed products, services, and policies.

The most important practice to ensure that enterprises succeed in any of the areas outlined above is to assign responsibility for long-term change management to one individual. Knowledge management systems cannot run themselves. They will deliver maximum value with periodic attention from a designated individual.

eGain and knowledge management

Gain has an unmatched track record of innovation in the areas of customer interaction management and knowledge management. Together with Inference, a pioneer in knowledge management that was acquired by and integrated with eGain, it has served enterprise customers with knowledge-powered customer service solutions for more than 15 years and owns fundamental patents in knowledge management.

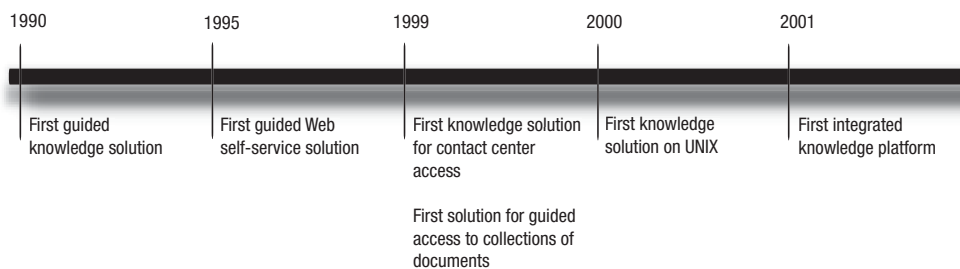


Figure 2: eGain's "Industry Firsts" in knowledge management

eGain's knowledge management software is the most mature, complete and universal in the industry and it:

- Supports all types of users: novice to expert, end-customers, partners, as well as agents.
- Solves a range of problems: from the simple to the complex.
- Uses an array of knowledge retrieval technologies: FAQs, intelligent searches, guided problem resolution.
- Supports over 16 languages.
- Allows companies to seamlessly leverage existing knowledge through gateways.
- Provides comprehensive reporting to manage the effectiveness of the knowledge base and productivity of agents.

In addition to the software, eGain provides a complete set of professional services for knowledge management that includes business consulting, implementation services, 24x7 support, education and training services on a global basis.

Conclusion

Knowledge management as it applies to customer service is a proven approach to maximizing the business value of knowledge within an organization. Knowledge management initiatives, which are focused on meeting well-defined strategic objectives and are based on implementation best practices, provide significant and predictable ROI. They also contribute to long-term competitive advantage by improving the total customer experience.

About eGain Communications

eGain (OTC: EGAN.OB) is a leading provider of customer service and contact center software and services, used by global enterprises for over a decade. 24 of the 50 largest global companies rely on eGain to transform their traditional call centers into profit centers, and extend their competitive advantage through unmatched customer service. **eGain Service 6™**, the company's software suite, available licensed or hosted, includes integrated, best-in-class applications for customer email management, live web collaboration, virtual agent customer service, knowledge management, and web self-service. These robust applications are built on the **eGain Service Management Platform™ (eGain SMP™)**, a scalable next-generation framework that includes end-to-end service process management, multi-channel, multi-site contact center management, a flexible integration approach, and certified out-of-the-box integrations with leading call center, content, and business systems. Headquartered in Mountain View, CA, eGain has an operating presence in 18 countries and serves over 800 enterprise customers worldwide.

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