

# The Strategic Benefits of Knowledge Management

## How Knowledge Management Makes Customer Satisfaction a Strategic Asset

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### Contributors

Michael Charney—Director of Product Research

Jessica Jordan—Analyst Relations Manager

### Editor

Jerry Ryan—Editor-in-Chief Techguide.com

“Knowledge Management  
technology holds the keys to  
capturing the most precious of  
all business commodities—  
workers’ knowledge.”

# Abstract

As business operations shift increasingly to the Internet and the Web, organizations are being forced to move their customer support and service operations online. The benefits of such a move can be substantial, since the virtual world operates nonstop 24/7/365, and provides unlimited opportunities for customer interaction. But it's also the case that satisfying unlimited demands for information and service can be expensive, and creates an "instant response" mentality in the customer base.

The solution to this problem lies in deploying a knowledge management (KM) initiative. Using KM technologies, organizations make it possible for their customers to obtain information just by searching for it, enabling them to satisfy their own demands around the clock. Because customers and end-users can answer many of their own questions through tier zero "self-service," customer service and support agents can devote more time and resources to handling complex issues.

In an enterprise environment, KM solutions make it possible to deliver expert knowledge to all sites within an organization. KM solutions also help mitigate the effects of personnel turnover and job changes since captured knowledge remains accessible at all times. Finally, KM solutions deliver the latest and most-up-to-date answers and information across the enterprise because knowledge sharing and replication ensure that all captured knowledge is current and available.

Implementing a KM solution requires an organization to recognize that knowledge is widely and unequally distributed within the minds of its employees, and buried in documents, e-mails, FAQs, manuals, and other information resources. The main hurdle to implementing a KM solution lies in the cultural changes needed to make KM really work—namely, the notions that knowledge must be explicitly captured, shared, and used effectively to provide the best possible benefits. Thus KM is as much a mindset as it is a set of tools and related information. Without management support, proper training, and a committed effort to make implicit

knowledge explicit, KM technology will be ineffective. But companies can successfully avoid these pitfalls by choosing the right people, processes, technology and knowledge to implement a KM solution.

The best guarantee of a successful implementation lies in partnering with a KM provider that offers the right mix of methodologies and tools to address KM needs. Those solutions include software that can capture and organize knowledge elements, along with the necessary support and training to insure a successful launch of KM solutions within an organization.

This whitepaper discusses the nature and benefits of knowledge management, and explains what's involved in implementing knowledge management solutions.

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## Introduction

It's very clear that today's business models depend greatly on maximizing resources, eliminating redundancy and automating processes to meet business goals.

Furthermore, it's also clear that eCommerce has become an essential part of the business equation. One of the truisms of this new model, in fact, is that the competition is merely a 'click' away. The juxtaposition of these forces brings business executives to the conclusion that they must move to an effective eBusiness strategy that enhances customer satisfaction while improving enterprise efficiency. Key to this is the effective use of information. But information, i.e. the mere accumulation of data, is, by itself, rather meaningless unless it can be collected, structured, organized, and made available as knowledge.

The effective use of knowledge is a key ingredient in all successful organizations, no matter what business they may be in; or what services they may provide. "With the advent of eBusiness, knowledge management is moving to the forefront of CEO agendas as a disciplined approach for enterprise transformation."<sup>1</sup> Effective knowledge management enhances products, speeds deployment, increases sales, improves profits and creates customer satisfaction. But using knowledge correctly in an organization requires an understanding that the mere availability of simple, disconnected bits of information is not knowledge and cannot adequately address these enterprise imperatives.

With that in mind, the subject of this paper is a discussion on the use of knowledge management to enhance customer satisfaction through effective customer service. Customer service, as defined in this paper, includes customer support, technical support and product support.

## Why Enterprises Implement KM Solutions for Enhanced Customer Satisfaction

Business executives face a number of increasingly obvious issues that motivate them to consider KM solutions in order to meet the customer satisfaction goals of the enterprise. Of course customer satisfaction touches many areas of the enterprise including product quality and suitability, price points, warranties, speed of delivery, etc., but one key area of customer satisfaction occurs when the customer has a problem or a question that needs to be answered. Many people think that a customer problem is a disaster, or worse, not important at all! Successful enterprises, however, recognize that a customer problem may be an opportunity to cement a lasting relationship with the customer by taking care of the problem quickly and efficiently, with good humor and real concern for the customer's satisfaction. But this cannot easily be done without KM solutions.

## Critical Issues Facing Customer Service Organizations

Customer Service concerns head the list of enterprise issues as organizations struggle with the broad implications of new eBusiness models. Among those concerns are the following issues that are related to the KM discussion.

1. **Growth in online customer base**—As successful businesses continue to build their customer bases it is not unreasonable to expect that eCommerce could generate a tremendous increase in online customer activities.
2. **High expectations**—Today's customers are increasingly conditioned to expect superior customer service or they can easily move to a more satisfying competitor.

3. **Costly and complex**—The cost and complexity of maintaining an effective level of customer satisfaction grows in dramatic proportion to the size and sophistication of the customer base.

4. **Significant challenges**—There are real challenges to maintaining a high level of customer satisfaction, including:

- **Increased call volumes cause mounting delays, which drive customers away:** When the competition is never more than a mouse click or a phone call away, frustrated customers can—and do—go elsewhere to satisfy their needs when they get “stuck on hold.”

- **Ratio of Customers to Agents:** The difficulty in maintaining a traditional ratio of contact center agents to customers is exacerbated by a fast growing customer population. In a business environment in which Internet access can multiply the customer base by several orders of magnitude it is simply not possible to maintain traditional agent to customer ratios.

- **Developing experienced and effective agents takes time and money:** Developing the all-important human resources to succeed at customer service takes time and costs money. Good people are often hard to find and organizations can be hard-pressed to find and develop sufficient support staff, and to cultivate their expertise.

- **Turnover and job changes can mean knowledge gets lost:** If hard-earned knowledge about support issues remains locked in key agents’ heads, it walks out the door when they do. Organizations that invest heavily in developing service and support staff can easily lose their investments when such staff leaves or moves into other positions.

- **New agents need extensive training to become productive:** Entry-level agents must learn and master large amounts of information while developing communications and relationship skills. It takes time and effort for service and support agents to come up to speed and assume a full workload even though their expense goes straight to the bottom line.

- **Identical queries must be repeatedly researched and answered:** When knowledge isn’t shared, agents must repeatedly research and reply to the same questions. This causes considerable duplication and waste of effort and resources.

- **Information accessible to some agents may not be accessible to all agents:** In traditional, labor-intensive support organizations, expertise grows over time and is related to ability, background knowledge and problem-solving skills. Some agents know more than others and can therefore handle a wider range of queries. This can lead to inconsistent and unsatisfying service and support encounters for some customers.

# Knowledge Management Is the Solution

Knowledge is as much a product of learning (e.g. “the last time this happened, the right solution was to use the IRA account number, instead of the main account number”) as it is a function of understanding the abstract relationships that affect underlying causes or effects. Customer queries, therefore, must be addressed within the context of the situation in which their questions occur. Automatically resolving such queries through proper KM requires that the system prioritize the substitutions, corrections or workarounds that are most likely to remedy the situation; and this knowledge can then be made available to end users or support agents.

The training of support agents can be an exercise in repetition and frustration. It takes time for individuals to learn the right set of symptoms, fixes and information that is most likely to satisfy customers’ issues. No sooner do agents master complex bodies of knowledge than they change jobs or leave the organization, taking their knowledge with them.

KM solutions attempt to make these vast, implicit bodies of knowledge as explicit as possible, and make it possible to organize, search, use and adapt any explicit body of knowledge in response to changing customer needs, circumstances and technologies.

Employing a knowledge management solution can make a huge difference in resolving the issues described previously, as follows:

- **The ratio of call agents to customers can be controlled and the interaction can be made more efficient:** A knowledge management solution that enables enterprises to offer customers, partners, and end-users effective self-service access to support knowledge permits consumers of knowledge to handle many of their own queries directly. This lets the organization leverage its service and support staff to concentrate on more difficult calls and to provide faster escalation and resolution.
- **Increasing call volumes can be handled via tier zero:** The self-service aspect of a knowledge management solution means that customers can search for answers to their questions 24 hours/day via the Web. By providing this tier zero support, live agents can devote their time and resources to answering more complex questions. According to the Gartner Group, the average call to a help desk can cost as much as \$27, but it can cost as little as a quarter of that for a user to check an online knowledge base.<sup>2</sup>

Robert Mirani, Research Director for CRM at the Yankee Group, says that “allowing customers access to corporate knowledge assets through self-service Web sites is a crucial component of next generation customer support—great customer service is not just about call tracking, but providing quick, accurate answers to customer inquiries.”<sup>3</sup>

<sup>2</sup>Source: Gartner Group, ComputerWorld, September 11, 2000

<sup>3</sup>Source: Robert Mirani, Research Director, CRM, Yankee Group, April 2000

- **Expertise can be shared:** A knowledge management solution not only captures scarce expertise, it makes that expertise available to all support and service agents uniformly. Thus organizations can leverage their knowledge and make it much more broadly and consistently available to their customers, partners or end-users.

- **Turnover and job changes do not cripple the system:** A key capability of knowledge management solutions is to capture knowledge and make it accessible to all service and support agents. Thus, knowledge no longer stays with those who hold or discover it; it becomes an organizational asset available to all who need it. This addresses two essential problems: the challenge of making the job more effective and satisfying so that key people stay with the company; and it addresses the problem of how to keep the knowledge in the company if a key person does leave. Therefore, it can reduce turnover and minimize the impact when it does occur.

- **Training time for agents to become productive is reduced:** By training service and support agents to effectively use a knowledge management solution they quickly become productive. Once agents know how to use their KM solutions, they become much more efficient and are ready to consistently and accurately deal with whatever customer queries may come their way.

- **Identical queries can be answered from already-discovered solutions:** Once knowledge is captured in a KM solution, it is readily accessible to all agents. Thus once a question is researched and answered the benefits of that work are available to anyone who needs access to that information. The result is increased productivity, allowing agents more time to deal with new queries and improve customer satisfaction.

- **Information is accessible to all agents:** Because knowledge captured in a KM solution is accessible to all agents, individual agents can reach the same level of expertise by building on each other's experience and knowledge. High level, built-in mechanisms for enterprise-wide replication in KM solutions enable agents in remote offices to have access to the same information as agents in the organization's headquarters—ensuring consistent, right answers.

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# Implementing Knowledge Management

Knowledge management is as much an activity (“something you do”) as it is a type of system or technology. That’s why it’s worthwhile to explore what’s involved in implementing knowledge management, or to put it more formally, in capturing existing knowledge within an organization, and then adapting that old knowledge while capturing new knowledge going forward. The process can involve a series of steps: creation, identification, collection, organization, sharing, adaptation and use.<sup>4</sup> Once such knowledge is captured, knowledge management professionals can apply the processes of analysis, organization, assigning relationships and priority rankings between questions and answers.

To begin, implementing a KM system within an organization means analyzing its current sources of knowledge. This includes not only capturing useful information from wherever it may exist, it also requires analyzing call logs, customer e-mails, and other sources of customer interaction to learn not just what the answers are, but what questions make such answers necessary. The phases that a KM effort goes through when capturing knowledge, and the activities related to completing each phase are:

- **Document knowledge:** analyze all possible sources of organizational knowledge to build a taxonomy of knowledge types and to decide what attributes and values should be associated with each type (let’s call an instance of some knowledge type—a specific item of knowledge—a knowledge element). Next, examine all possible sources to uncover existing knowledge elements, and make it possible to discover new knowledge elements.<sup>5</sup>

- **Share knowledge:** start by recording all known knowledge elements from documents, communications, and subject matter expert interviews. Analyze the collection to classify knowledge elements by type, and to establish a hierarchy or organization among types. Finally, tag the knowledge elements and hierarchy information to make it possible to search the knowledge base by keyword, explicit match, or relationships to one or more named problems. At each step along the way, include input forms to elicit feedback from KM system users about knowledge elements, element organization, element search and retrieval, and element relevancy.
- **Apply knowledge:** This is where customers and support staff interact with the knowledge base to locate and use relevant knowledge. This is where it is essential to refine the contents of knowledge elements and to adapt the structure of the knowledge base in response to such interaction. The ability to make and suggest useful relationships between problems and solutions is powerful enough to enlist a strong buy-in from support staff and knowledge management professionals when they see that a dynamic system can improve search results, agent productivity and customer satisfaction.

In general, and within the context of customer service systems based on customer contact centers, KM encompasses the broad range of capabilities needed to logically capture, organize, share, and use knowledge elements in order to recognize problems and suggest possible solutions to customer service queries. The following functions are crucial for a successful KM implementation. KM vendors must provide solutions that are able to:

- **Capture and organize knowledge elements** for identification and relevance ranking. At the outset of a KM system implementation, existing knowledge must be captured; and as the system is used over time, new knowledge must be added as needed, and likewise captured, organized and ranked for relevancy.

<sup>4</sup>Source: APQC and Arthur Andersen, 1995

<sup>5</sup>There are other sources of knowledge that are worth investigating. ServiceWare, for example, offers its RightAnswers.com™ knowledge portal, which takes the form of knowledge channels that together comprise the world’s largest collection of multi-vendor support content. These knowledge channels include hundreds of thousands of problem-solution pairs, along with diagnostics, illustrations, technical articles, and reference documents for more than 3,000 hardware and software products. Available channels include Microsoft, Novell, 3Com, PC Show and Tell, and BugNet. ServiceWare’s own Foundation Channels include solutions for Netscape, Corel, Lotus, Linux, and Microsoft, just to name a few.

- **Apply contents of the knowledge base** to incoming queries to look for matches and establish relevance between knowledge elements and query contents. The KM system must make it possible to analyze the lexical and semantic content of queries to look for whatever connections or relationships might exist between queries and knowledge elements.
- **Maximize re-use of knowledge elements**—any relevant query is represented in a KM system as it occurs, generating a knowledge element that will be considered each time a similar query occurs.
- **Represent any workflow or organizational process** with its own application-specific sources of knowledge within the KM system—thus, HR professionals could have access to HR knowledge, IT professionals to IT knowledge, and so forth.
- **Solicit continuous feedback** on the applicability of existing knowledge elements to new situations, new problems and new scenarios. This permits the number of element relationships to grow, and explains how organization and relevancy ranking can improve with time, thereby increasing the value of the knowledge base itself.<sup>6</sup>

Experience has shown that implementing a KM solution is both attainable and desirable within most organizations. Typically, it is possible to conduct a standard initial implementation within thirty business days. Within that timeframe users are able to demonstrate the success of installing, populating, and using a modest knowledge base system to address service or support issues within a well-defined problem area.

This initial implementation enables organizations to understand the processes and methodologies necessary to carry out a successful KM project and can provide a powerful demonstration of a KM system's capabilities within the user organization. The right supplier can also provide all the necessary project management, systems engineering, knowledge management consulting, technical training and support needed to obtain the results targeted from an initial deployment.

## C h e c k l i s t :

### What Knowledge Management Systems Should Deliver

- Support for multiple channels of user access, including Web, e-mail, chat, and VoIP
- Personalized, self-service end-user experience (whether access from inside or outside an organization)
- Costs must scale effectively as services needs grow and expand
- System must support unassisted service (self-service) and assisted service with equal facility (and be able to track interactions from the unassisted side into the assisted side, so support staff can put a customer's problems into context)
- Ability to capture feedback from end-users, customers, support staff, and knowledge management
- Rapid solution development with proactive service for end-users, so that any unsolved problem is solved as soon as possible
- Must apply to any subject area, from accounting to customer service, where knowledge elements can be captured, organized, and ranked for relevancy. Ideally, a KM system should be able to handle multiple subject areas within the same overall framework.
- KM vendors must supply training and consulting support, so that organizations can learn how to utilize the system and build their knowledge bases
- KM systems should be able to incorporate pre-existing knowledge bases, especially for widely used IT products and technologies

## Benefits & Payback for Knowledge Management

Given the right degree of investment in KM systems and technologies, and the right level of organizational commitment to their deployment, upkeep and regular use, the following benefits for KM may be realized:

- Re-use of existing knowledge elements prevents recurring costs related to repeated research of the same topics, and repeated formulation of the same solutions.
- Access to in-depth knowledge elements for support staff, partners and customers improves the customer service experience and speeds the time from problem statement to problem resolution.
- Support organizations can deliver faster, more accurate responses to questions. Be it from a successful self-service support, or from an assisted service call, customer satisfaction improves when problems are resolved quickly.
- Faster resolution of support calls means improved support staff productivity: support organizations can handle more incidents overall (particularly when self-service works for common problems and queries), and support staff can concentrate on helping customers with more serious problems or questions.
- As a knowledge base is used over time, continuous feedback from its users helps the system improve relevance ranking, identify new and improved solutions, and establish the applicability of known solutions to all related problems. This increases the value and usability of the knowledge in the knowledge base.
- Because KM systems can capture and manage knowledge from just about any subject area, organizations can use their KM systems to handle problems across a broad range of topics and job functions. This permits the knowledge base to become a real repository of collective organizational wisdom.

- Because support volume can increase dramatically with little or no increases in cost for support personnel, and the most needed knowledge is available online 24/7/365, organizations that deploy KM systems become much more competitive than those which don't. They can offer more services more often at the same price as those organizations that still rely on 8-hour or half-day telephone support coverage.

The proper use of a KM system to support even tough calls ensures that answers based on shared knowledge come up quickly and are far more likely to be correct. The paybacks from a committed investment in KM systems and technology go beyond controlling escalating support costs. They also involve an increase in customer satisfaction, the ability to capture knowledge and resolve related problems of all kinds, and an increasing ability to recognize and deal with an organization's problems, no matter where and how they occur.

As a result, proper deployment and use of KM systems and tools promise a substantial payback. Not only can organizations do more with the same or fewer resources, they can also deliver a better quality of service to their customers.

## Summary

Organizations are moving to a 24/7/365 eBusiness model. In this nonstop environment, the quality of the customer or end-user experience is key to maintaining market and mindshare in the new economy.

Enterprise executives who recognize this new business paradigm and who are willing to commit their organizations to a process aimed at embracing this reality will gain a tremendous advantage from deploying knowledge management systems and technologies. By building on their organizations' customer support experiences and by making the most out of their current investments in support staff, these enterprises can gradually move from seeing customer support as a costly and reluctant overhead to recognizing it as a business advantage.

KM technology holds the keys to capturing the most precious of all business commodities—workers' knowledge. Turning that knowledge into a dynamic, reusable resource that is always improving in value provides a level of customer satisfaction that is unsurpassable in today's competitive eBusiness world.

ServiceWare is a leading provider of Web-based solutions for enterprise service and support, which enable organizations to win on service in the incredibly competitive world of eBusiness. ServiceWare delivers a comprehensive, integrated family of eService solutions that enable organizations to easily provide customers with fast, accurate answers to inquiries across all touch points—Web, e-mail, phone, fax or in-person. Based on ServiceWare's robust knowledge base and patented Cognitive Processor™, ServiceWare's eService Suite™ enables customers to build service destinations for eBusiness. RightAnswers.com, a Web-based knowledge portal and component of eService Suite, gives the end user direct access to ServiceWare's Knowledge Channels, which provide technical support knowledge from leading technology companies including Microsoft, Novell and 3Com, and serves as a leading single source for fast, accurate IT solutions. ServiceWare customers represent a cross-section of industry leaders in the financial services, technology, manufacturing, healthcare, entertainment, education and government sectors. More than 4000 organizations have implemented ServiceWare eService solutions including Pfizer, Lucent Technologies, Marriott International, Fleet Services, Stream International, Texas Instruments, Ingram-Micro, John Deere and Bear Stearns. ServiceWare is the recipient of the prestigious CRM Excellence Award 2000, and was also named one of the "Top 100 Companies to Watch" by KM Magazine. Learn more today by visiting ServiceWare's Web site at [www.serviceware.com](http://www.serviceware.com) or call 800-572-5748.

**World Headquarters**

333 Allegheny Avenue  
Oakmont, PA 15139-2066 USA

800.572.5748  
Tel: 412.826.1158  
Fax: 412.826.0577

**East Coast Office**

Four Century Drive  
Parsippany, NJ 07054-4680 USA

Tel: 973.540.1212  
Fax: 973.292.9407

**West Coast Office**

100 Marine Parkway  
Suite 125  
Redwood Shores, CA 94065 USA

Tel: 650.551.8969  
Fax: 650.598.9817

**ServiceWare International**

Wyvols Court  
Swallowfield, Nr. Reading  
Berkshire RG7 1WY  
ENGLAND

Tel: +[44] (0) 118.988.0220  
Fax: +[44] (0) 118.988.0390

[www.serviceware.com](http://www.serviceware.com)

