

Leveraging Your Knowledge Assets

Replicating Successful Projects
Depends on Access to Information

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A White Paper from Six Sigma Qualtec



“All our knowledge has its origins in our perceptions”

– Leonardo da Vinci (1452 - 1519) Italian painter, sculptor, architect, engineer

Every business holds a wealth of intellectual capital. These assets reside within the organization’s most valuable resource: its people. Baseline performance is based largely on the technical knowledge, personal experiences and collective wisdom that are kept by individual contributors and as a whole establish a considerable knowledge base.

Knowledge management – understanding what your organization knows, sharing it across organizational bounds, and creating new knowledge based on previous experience – is a function critical to the successful replication of Six Sigma projects and other process improvement methodologies that ultimately lead to breakthrough performance. The key questions – What do we know? How do we transfer or share it? How do we use it to create new ideas? – must be systematically addressed and actively managed in order for an organization to leverage its lessons learned into future success.

This white paper will examine the core components of knowledge management and address specific issues that must be considered as an organization establishes a knowledge management approach to performance improvement.

What Do You Know?

The first component of effective knowledge management is an awareness of the knowledge already residing within your organization. The pre-existing information focused around specific content areas makes up the foundation of everything that follows, from collaborative project management to the creation of new ideas.

Raw information – thousands and thousands of data points – exists, whether or not you are collecting it. It is there, but it is virtually useless until it is purposefully located and captured. A major commitment to actively manage this information is required in order for it to provide any meaningful use to your organization.

In a Six Sigma deployment, the act of capturing and cataloging this information is often initiated through the process mapping conducted by Black Belts during their projects. Champions, in particular, have the responsibility to be aware of the information residing within their sphere of influence and take the available data into consideration when determining Black Belt projects. Successful projects will those that are able to measure and analyze sufficient relevant data.

At an organizational level, there must also exist a “knowledge vision.” As surely as executive leadership is responsible for a business’ strategic direction, they must also establish the framework for a common mind-set, or shared way of thinking about the information the organization possesses.

When your business talks about ROI, for example, every employee from vice president of finance to factory floor worker must share the same understanding of what that means. Status reports must establish and adhere to a common vocabulary of terms, concepts and approaches. Assumptions made about what appear to be “common knowledge” often mask the reality: the same words, phrases and statistics can mean vastly different things to different people. The differences can be purely technical. There may be legitimate differences of meaning between functional groups or professions. The differences may even lie in varying levels of ethics or moral disposition. The point is, the “meaning” of a fact or piece of datum is largely subjective until you establish a common mindset. Without this shared knowledge vision, little meaningful collaboration will take place.

Within a Six Sigma deployment, some of this is built in. Thinking with Data, process mapping, COPQ analysis and other tools in the Six Sigma toolbox are methods of creating and communicating the requisite “rules of the game.” The commonality may begin as fairly artificial structures, but they are a place to start.

You can have all the data in the world, but if it is not interpreted through some common approach, it is meaningless. As futurist John Naisbitt puts it, “... we will drown in information while starving for knowledge.”

Transfer of Knowledge

Replicating the success of projects goes beyond circulating a final report. True knowledge transfer – the sharing of existing knowledge as a useful resource with the wherewithal to traverse functional lines throughout the organization – requires a consciously shaped environment and an array of tools and channels for knowledge distribution.

The very concept of “knowledge transfer” depends on the interaction between people. This activity is not an abstract theoretical exercise – it is actual communication between human beings. So much so that, in some cases, the information being exchanged becomes secondary to the human interaction. This does not suggest that your people communicate for the sole purpose of communicating, but it does mean that you cannot ignore the importance of creating an environment in which communication is a natural, supported activity. Once that mindset is in place, you can begin to pay attention to the content of your knowledge resources.

Conduct an audit of the materials available to your organization. Six Sigma Project Reports, Frequently Asked Question lists, a collection of classic and current management books, a catalog of best practices, and benchmark studies should all be made available. In addition, a well-indexed collection of case studies must be maintained and regularly updated.

Identifying a central location of your information can be as simple and as literal as creating a basic library collection and a place to house it. The importance of an actual physical space cannot be overlooked. Human interaction requires a place in which to interact, and that environment is just as necessary as books on shelves and bound case studies.

Consider the account of one high tech company where management had announced plans to place the company’s entire technical library on-line, and to save money completely eliminate a long established library and turn it into offices. The engineering staff reacted with a unanimous and emphatic negative response. The library, they argued, was a treasured place where people met and discussed the problems and technical challenges with each other. People who would not otherwise have the opportunity to share their thoughts and experiences placed great value on having somewhere to go for such collegial interaction. Such is the case in many organizations. In fact, even if there is not an “official” corporate library, you can be sure that your people are finding some informal, off the record forum for professional dialog.

At the same time, you need not ignore the powerful technology that can create just such an environment in a virtual setting. In particular, web-enabled knowledge management platforms will play an increasingly important role in supporting business and technical discussions within companies that have multiple locations or a mobile workforce. Distance makes it harder – but not impractical – to sustain meaningful dialog between colleagues.

Electronic knowledge management tools are not without their limitations. Any system that does not allow people to easily communicate will ultimately fail in sharing a knowledge base. In addition to email and chat capabilities, a knowledge management system must include easy-to-use, searchable access to case studies, technical reports and whatever other literature is contained in your library. Ultimately, the strength of any electronic system lies entirely in its capability to connect people with each other, and to allow them shared access to a common information base.

The library – be it physical or virtual – must be populated with useful information. Case studies and best practices, in particular, must be formatted in a way that allows for flexible indexing and searching. Otherwise, much of their wealth will be lost.

At the basic level, a case study can provide specific technical information that could be used in the exact same technical problem when it occurs elsewhere. If someone has previously fine-tuned a process involving steel processing, and you’re working on a project that has identified similar inefficiencies in process, the case study should show you what had previously been done to address the problem.

Historical resources become much more powerful when they are written in a way that transcends the literal technical experience and addresses more fundamental issues. Case studies must be framed, not in technical terms, but in the essence of the problem solved. Best practices should move beyond the “how-to” level and present a creative approach to a more universal application.

Years ago, when a Motorola division set out to benchmark best practices, they originally sought other electronics companies that made radios. They ended up benchmarking against FedEx and catalog giant L.L. Bean. Why? Because the fundamental area Motorola sought to improve was the process of how to get information from customers over the phone and translate that information into getting orders out the door.

You must also consider the way in which your people will use the available literature. Consider the needs of potential future users when developing and cataloging resources. Your library must have a capability to be searched or queried with enough flexibility to produce results in unexpected, previously undiscovered ways. At this point, the value of a shared knowledge vision becomes apparent. Your library can contain thousands of documents and indexes; if they aren’t written in a “language” that everyone understands they will never reach their full potential as useful information.

Using the Knowledge Base to Create New Ideas

Pre-existing knowledge is most powerful as a stimulus for new exploration. True wisdom comes, not only from the lessons learned, but also by how future behavior is influenced by those lessons. Breakthrough performance is the result of creatively applying the things you already know to new situations.

High performance organizations usually have one thing in common. They foster an environment in which cross-pollination and collaboration are the rule, not the exception. The more successfully people across your organization understand how the business as a whole works, the better you will establish a shared context, a common vocabulary. And the better the shared context, the more likely the “macro” solutions can provide insight into the “micro” problems.

Further, a high performance corporate culture is one that openly encourages exploration and experimentation. If you have a “one shot only” mentality, it will be harder to find new ways to solve your problems.

Interestingly, there is one pitfall in relying too heavily on your knowledge resources. Rigid adherence to best practices can backfire. If your people are too well indoctrinated in following a “best practice” – if they believe that not only is it the best way but the only way – they will be far less likely to seek new solutions. It’s a matter of balance. You don’t want anarchy, but you must create and maintain an environment that encourages change. The Toyota Corporation has struck a good balance. As demonstrated by their Toyota Production System, they have learned to value standardization, but they realize that it can also lead to stagnation. As a result, they are good at standardizing procedures, but they also encourage, not discourage change.

The final piece in effective knowledge management is the way you position it for future use. There must be a sense of “what’s next” that goes far beyond the loving documentation of historical experiences. As with any good research paper, your resources must primarily consider how others will use the information for their own situations. Include hints of how a given technology might be translated for other uses. Make a concerted effort to dream of the possibilities. It will make a difference.

This approach benefits your current workforce as well as generations to come. Imbedded in your knowledge management practices are numerous opportunities for professional development. Programs such as Six Sigma are one means by which to challenge your organization’s assumptions. The standard two-year assignment of Black Belts to a series of focused projects establishes a cadre of skilled professionals prepared to ask tough questions and demand organizational change.

Above and beyond Six Sigma deployment, there are even greater opportunities to gain institutional wisdom while encouraging and supporting professional development of your workforce.

One major telecommunications company, for example, made a point of routinely taking the top ten percent of its workers out of local offices and placing them into national training assignments for 3-5 years. Not only were they able to transfer the practical knowledge they’d gained to new-comers; at the same time they obtained a new knowledge context by working with colleagues from other parts of the country. In addition, they encouraged close collaboration between these senior fellows and the R&D function. The net result is an immensely strong knowledge transfer process that assured continual improvement and replenishment.

Summary

Successful knowledge transfer depends on your organization’s ability to identify available information, provide open access to that information, and create and sustain a culture that allows for creativity in finding new answers based on previous experience. Ultimately, knowledge transfer is an ongoing dialog. Its yield comes in the development of a powerful capability to attack business problems and challenges with vigor. A concerted effort to manage your knowledge assets will build a workplace in which the entire workforce benefits from collective learning and wisdom. The whole IS greater than the sum of its parts.



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