Measuring knowledge management is not simple. Determining its impact is analogous to measuring the contribution of marketing, employee development, or any other management or organizational competency. It’s nonetheless a necessity if KM is to last and have significant impact. Here, Kimberly Lopez and the APQC team outline a measurement plan for each stage of the KM journey.

HOW TO MEASURE THE VALUE OF KNOWLEDGE MANAGEMENT

Appropriate metrics for each stage of KM implementation

By Kimberly Lopez

During its 2000 forum, Successfully Implementing Knowledge Management, APQC focused on how some of the most advanced early KM adopters implement a knowledge management initiative, mobilize resources, create a business case, and measure and evolve their KM programs. Figure 1 illustrates the stages of development that emerged from observing best-practice organizations. From this study, it’s clear that no matter what stage an organization is at in its journey through KM, it’s critical to measure the value of knowledge management at every stage. In stage one, formal measurement rarely takes place, but as KM becomes more structured and widespread, the need for measurement steadily increases. As KM becomes a way of doing business, the importance of KM-specific measures diminishes, and the need to measure the effectiveness of knowledge-intensive business processes replaces them. Here we outline metrics for each stage.

Stage 1: Get started

There has to be a new source of energy or interest to cause KM to appear in the first place. Someone must become inspired with the vision of the organization effectively supporting human knowledge capture, transfer, and use. Energized by his or her vision, this champion begins to search for opportunities to share the vision with others and to find opportunities to demonstrate the value of KM. The central task for the champion at this stage is to create a vision that inspires others to explore how managing knowledge will contribute value to the enterprise.

Measures appropriate for Stage 1

It’s important to expose the need for knowledge management at this stage. The value of KM needs to be understood by management – more in theory at this stage than in quantities. The most effective way of convincing them may be to find the areas of “pain” within your firm – redundant efforts, areas of lost time, and therefore lost money. Interviewing key stakeholders helps uncover these needs and exposes weak areas. Benchmarking with similar industries that have successfully implemented KM can also convince...
KEYPOINTS
The stages of KM maturity and appropriate metrics
- Stage 1: Getting started. Metrics at this stage are backed up by success stories from other firms.
- Stage 2: Develop strategy. Metrics at this stage will track progress against targets and external benchmarks in order to outline a definition of KM.
- Stage 3: Design and launch KM initiative. Metrics at this stage provide evidence of KM’s business value by conducting pilots and capturing lessons learned.
- Stage 4: Expand and support. Metrics at this stage determine whether a culture shift is occurring.
- Stage 5: Embed. Metrics at this stage are not used to prove value, they are used to check progress and monitor the continued evolution of the culture.

skeptics. If your competitor has gained recognition for its KM efforts and has seen its productivity jump and operating costs plummet, you have good proof of KM’s power.

Stage 1 is the time for advocating the potential of KM. Once you have others on board, more concrete measures will be necessary.

Stage 2: Develop a strategy
During the second stage of KM implementation a practical definition of knowledge management is formulated and consideration of its applicability is made. The movement can start from isolated, grassroots knowledge-enabling activities and develop into a corporate vision and strategy. The development of several knowledge-enabling practices and pilots can be the catalyst to draw positive senior management attention. Further, it allows organizational sponsors to realize and consequently support the formation of a cross-functional team that can bring alignment. At this point in the process, negotiations for funding can add additional resources to limited funds from the local teams. Toward the end of this stage, the pilots’ focus begins to center on specific knowledge management ideas and principles in order to demonstrate capabilities.

Measures Appropriate for Stage 2
We begin to see the emergence of a need for measurement in Stage 2 as interest about KM escalates. These measures appear in three main categories: anecdotal, quantitative, and qualitative. It’s appropriate to begin this section by identifying what should not be measured in Stage 2. Since most management initiatives are driven by financial results, the instinct is to identify quantifiable financial measurements such as productivity gains, increased sales or reduced costs.

Measurement of financial returns or results should not be undertaken at this point except as byproducts of other efforts. Simply stated, if you are measuring for financial returns at this point, then you’re measuring the wrong thing.

Focus should be on meaningful measures that explore the opportunities for implementing KM practices, developing strategies, raising organizational awareness, and experimenting with different concepts. You should concentrate on developing and selling the concept and then measure against your plan. Examples of potential measurements include:

- Measure for Progress. Measure the progress you make in developing and growing sponsorship and support. How successful are you in gaining senior management’s attention (is anyone listening to you)? Measurement here is largely anecdotal with some quantitative measurements such as:
  1. the number of sponsors you can recruit both as champions and as project sponsors;
  2. how many times you can get in front of decision makers and the responses you receive;
  3. how much funding you can get. If all you receive is verbal support and no time or money, you need to rethink your strategy.

- Measure the gap. As part of your work in Stages 1 and 2, you should have completed an assessment of your organization to determine what KM practices you currently have in place. You should attempt to identify what metrics are being used and determine their value. This provides a benchmark for future measurement.

- Measure against a benchmark. Benchmarking with other organizations can lead to executive sponsorship. How many organizations have KM initiatives under way? What’s their funding, staffing, and reporting structure? If your managers see that KM is receiving attention in other firms, they may be inclined to support you. Gaining an understanding of what your suppliers, customers, and peer companies are doing to enable knowledge sharing is also a good idea.

- Measure your cultural readiness. It’s important to develop a knowledge-sharing culture. Critical practices that foster employee information exchange, teamwork, collaboration, and trust can be built on through crediting the
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contributors. Begin to collect evidence of teams’ social norms and practices and determine if insights can be incorporated into other teams. Record stories to encourage role model behavior.

Stage 3: Design and launch KM initiatives
This stage signals the formal implementation of a KM initiative. The goal of Stage 3 is to provide evidence of its business value by conducting pilots and capturing lessons learned. The framework for communities of practice begins to be formalized at this stage, and funding and support is derived from central resources as well as the donation of time, people, and money from organizations that are enthusiastic about knowledge sharing.

Measures appropriate for Stage 3
At this stage, there’s a convergence of the three main categories of measurement: anecdotal, quantitative, and qualitative. The degree of rigor becomes focused on business strategy – the key is to ensure that value is perceived by the firm as a result of knowledge-enabling projects. Establish a mechanism to capture lessons learned in the KM pilots, as these will be the building blocks for later. Measures here include process, culture, content, IT, and people. Examples of Stage 3 Measures are:

• Measure the business value. Document hard and soft business value derived from pilots. Map metrics to specific business goals such as clock speed (time saved equals direct labor cost). Extrapolation of anecdotal metrics into more quantifiable measurements should occur.

• Measure retention of knowledge. Measure the amount of information contributed to the knowledge base over time against the retrieval and reuse. Quantifiable measurements are not enough; they must be balanced with qualitative data. The number of hits on a Web site is not good enough. Specific measures may include:
  1. Time spent per hit.
  2. How many repeat users?
  3. How often is a site visited?

• Measure the cultural impact. Here the effort lies in determining the metrics; the potential value of the measurement; the cost for measuring vs. the value of measuring; and processes. The cultural side can be measured in Stage 3 through the following:
  1. Stories can form the basis for quantitative data. Can a story have behavioral impact that cannot be measured in traditional terms?
  2. Performance review. Individuals can be rated by their peers (360-degree feedback) on three major knowledge-sharing points: Do they share knowledge in a constructive way? Do others find their knowledge of value and use it? Do they use others’ knowledge?
  3. Recognition and rewards. Incentives for individual contributions are required. A reward system can provide quantitative measurements.

  • Measure the effectiveness of communities. Based on findings, determine essential elements that contribute to an effective community. Draw correlations against those that have not been as successful.
  • Measure the cost of capture and compilation. If information is not retrievable, it’s of little value. Quantifiable measurement of the time required to capture information is applicable. Is the cost of the capture process too expensive in comparison to the value of the captured knowledge? The factors to be considered:
    1. Creating the environment (electronic or live);
    2. If live, the time commitment of participants;
    3. If electronic, the production costs;
    4. The storage and distribution costs;
    5. The amount of responsibility that lies with the individual to capture his or her knowledge.

  • Measure project management effectiveness. Successful pilots build organizational support. To ensure that pilot projects are managed effectively, it’s beneficial to track them. Was a formal methodology employed? Was a timeline established? Were objectives clearly stated? Measure the pilots’ performance against the intended results. Measuring cost in your pilots helps determine program direction, so the KM team can rethink its priorities and shift resources.

Stage 4: Expand and support
When an organization reaches Stage 4, KM has proved valuable enough to become part of the organization’s funded activities. Demand for KM support by other parts of the organization tends to be high, providing additional evidence of its value. High visibility is a mixed blessing – KM will now require formal ROI justification.

Measures appropriate for Stage 4
Since organizations at Stage 4 are undertaking projects in diverse areas of the business, it becomes necessary to evaluate knowledge in relation to the whole organization. Evaluating a KM project might require the examination of areas that help the
organization determine whether the projects in its KM portfolio are beneficial to the success of the company. Criteria may include:

- Proficiency: Has a process become world-class because of KM?
- Diffusion: Has KM been properly executed? Is the project and knowledge managed well?
- Codification: Because codifying knowledge is expensive, should the organization limit it?
- Openness: Is the knowledge described in jargon? Is the knowledge base open to all?
- Does the project generate questions?

Justification measures can be difficult when the firm is trying to decide whether to adopt KM as part of corporate strategy. The organization has to not only measure how knowledge projects perform, but also evaluate how the business key indicators are linked to them. This is easier if the business owner decides what needs to be improved before embarking on a project.

It’s important to tap into the values of the organization and determine whether a culture shift is occurring. Personal performance reviews can determine if managers support knowledge sharing and give employees a chance to share.

To estimate ROI, add the costs of a community (including labor, meetings, facilities) and then identify how much effort is spent by knowledge management experts. Then decide how much effort has been saved by sharing solutions in the community. Another way might be to look at subcommunities and their generation of solutions in terms of community projects. If a group needs a solution and embarks on a knowledge-creation effort, determine how much has been saved in time to market, competitive positioning, etc. We looked at Siemens for examples of Stage 4 metrics:

- To help prove the value of KM at Siemens, it’s currently making a master plan of KM metrics that contains measures for each of four dimensions of its holistic KM system:
  1. Knowledge community: the organization, community, people dimensions.
  4. Knowledge environment: all of the above.

Community and marketplace
Siemens has realized that it can easily evaluate the success of its communities and marketplaces with measures such as: how much knowledge comes in or out of the community, and quality of feedback.

Siemens believes communities are the heart of the KM system, and it has spent a great deal of time on CoP assessments-questionnaires for community members that provide ideas on how to improve the community.

Environment
A company can measure its knowledge environment through value assessment, i.e., measuring the values of employees and business owners to see if they match. To determine the values, an outside firm asks a series of questions to determine the importance of various issues to people. A question might be “Is it more important to exchange experiences with friends or create something new in your environment?”

KM processes
Siemens has tried to check the health of processes to determine the performance of the sharing process. Ideally, the measures evaluate whether a person has managed the process correctly and set the right limits on it. This would give Siemens a good way to not only look at the marketplace but also examine how much sharing and creation is taking place.

As a whole
To monitor the entire KM system, perform a KM maturity assessment that defines whether the process is still ad hoc and chaotic or has progressed to an optimized state. For example, Siemens measures its four dimensions and 16 enablers, each of which has a set of questions. With a diagram showing the maturity for each dimension, an organization can get a feel for its maturity level.

Stage 5: Institutionalize KM
In some ways, Stage 5 is the continuation of Stage 4 to its logical conclusion of full enterprise-wide deployment. However, Stage 5 differs from Stage 4 in three fundamental ways: it does not happen unless KM is embedded in the business model; the organization structure must be realigned; and evidence of KM competency becomes part of the formal performance evaluation.

Sharing knowledge becomes part of the firm’s way of doing business as well as a management competency. In the relatively young arena of KM, only a few organizations have reached this stage. As in Stage 4, Stage 5 measures are not used to prove value. They are used to check progress and monitor the continued evolution of the culture. KM can no longer be called an initiative at this stage – now your business relies on it.

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