Knowledge Management Metrics
Mark Graham Brown

The value of most organizations today is less determined by their physical assets than their intellectual assets. Intellectual property such as patents, technologies, ideas, and designs are what keep leading companies like Bose, 3M, Medtronic, and Boeing ahead of their competition. A big challenge for many organizations is to document and pass on important knowledge to others in their organization so that they can benefit from the discoveries of others. According to the American Productivity and Quality Center, Knowledge Management, or KM for short, is defined as:

*A systematic process of connecting people to people and people to knowledge and information they need to effectively act and create new knowledge.*

In a study by APQC on measuring the impact of knowledge management, many companies simply rely on their standard performance measures of things like growth, profit, and new product sales to evaluate the impact of knowledge management. While these types of outcome measures are certainly important, they are highly unlikely to be influenced solely by knowledge management activities, and therefore make poor metrics. A further problem is that these outcome measures are all lagging indicators and it might take several years for sharing of knowledge to show up in a bottom-line performance measure.

There are two types of knowledge that can be found in any organization:

- Explicit – formal codified knowledge documented in reports, papers, specifications, patents, formulas, books, and other forms of documentation
- Tacit – informal uncodified knowledge that resides in people’s heads that can be difficult to capture and transfer.

Often the tacit knowledge that has been acquired over years of experience is the biggest concern in organizations when a senior employee retires or moves to another job.
Organizations that have made a major investment in Knowledge Management need a separate gauge on their corporate dashboards to tell them how the program is working.

An effective metric or gauge for Knowledge Management might be an index that is comprised of the following four types of measures:

1. Awareness – knowledge of what to document, how to document it, how to access KM data bases, etc.
2. Behavior – participation in KM activities such as committees/teams, making presentations, etc.
3. Outputs – creation of data bases, white papers, lessons learned reports, best practice documentation, etc.
4. Outcomes – impact of new knowledge on key measures of organizational performance such as new product sales, productivity, cost reduction, or quality improvement.

An aerospace client of mine searched for best practices when it came to KM metrics, and found that many of the activity measures that various companies had tracked often did not correlate to any meaningful outcomes. In other words, lots of data bases were built, presentations made, and knowledge sharing meetings were held, but overall company performance had failed to improve. The KM metric they were most impressed with was the approach used by Ford Motor Company that focuses on outputs and outcomes. Ford does not bother measuring how many things get documented or reviewed. Rather, they measure how many ideas or approaches are developed in one part of the company that are then adopted and implemented in other parts of the company. Ford also measures how implementation of the ideas and approaches has paid off on bottom-line outcome measures.

While my aerospace client loved the Ford approach, they were concerned with a metric that was strictly rear-view mirror or lagging. They wanted to have a gauge that was 60% lagging indicators and 40% leading indicators. The leading part included measures of awareness and behavior as indicated above. Part of the behavior measure was a measure of how engaged the organization was in knowledge management practices. A low level of engagement would be an organization that sends a few low level participants to knowledge management meetings, and those individuals rarely contribute much or appear to take away much. A high level of engagement would be
shown when the organization not only consistently has a large number of
high-level and talented individuals participate, but that they are actively
engaged as well. KM behavior measures also tracked documentation of
important information and lessons learned, and use of KM software that the
company had purchased. We came up with measures of awareness and
engagement (behavior) on a 10 point scale, and ratings were done quarterly
because the level of participation on KM activities tended to increase or
decrease with time. It is too early to tell if the KM gauge they created is a
valid one, but at least it is one that all participants agree on, and the 60%
portion is taken from Ford and has been proven over a number of years. In
fact, Ford is one of 5 companies selected by APQC for having an excellent
KM measurement system.

Knowledge Management looks like a valid and effective approach for
organizations to pass on lessons learned to others. However, some other
management programs that have come and gone over the years (MBO, TQM,
ABC, IPD, etc), or the ones still with us (Lean, Six Sigma, balanced
scorecard, etc.) have failed to produce promised results. The failures have
not been due to any shortcomings in the programs themselves, but are due to
poor implementation or a lack or resources. Because of this, it is important
to have a way of measuring on at least a quarterly basis how well your KM
initiative is going. Don’t fall into the trap of measuring KM by counting
teams, meetings, data bases, web site hits, or similar meaningless things that
are easy to quantify and report on. Focus most of your metric on real results
that can be attributed to KM. On the other hand, simply tracking existing
performance measures like ROI, sales, profits, or customer loyalty will not
really show the effectiveness of KM.

In many large organizations, Knowledge Management is just one of many
programs or activities designed to improve performance. This was also the
case in the aerospace company I mentioned. They created a section of their
dashboard called “Enterprise Excellence” that included one gauge for each
of the four major improvement initiatives the company had. There was a
KM gauge, another for Lean, another for Balanced Scorecard, and a forth
gauge that measured the success of Process Improvement. Each of the four
Enterprise Excellence metrics had a similar structure with 60% of the weight
on the output/outcome measures and 40% on the awareness/behavior
measures. This approach makes sense for measuring any improvement
initiative.
The best approach to designing a KM metric is to include the categories of measures I previously mentioned and include both leading and lagging indicators. To test the validity of the leading indicators, monitor to see if improvements in the leading indicators leads to improvements in the lagging ones. The organizations that my aerospace client studied found no correlation between KM activity measures and outcomes. I also recommend getting more information on how others track KM by contacting the APQC and getting access to their excellent report *measuring the Impact of Knowledge Management*. (apqc.org)

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