



ON THE BRINK

Return On Knowledge Management

An approach to assess financial yields of intended knowledge management activities

DO I NEED TO INVEST IN KNOWLEDGE MANAGEMENT?

Two main reasons to invest in knowledge management are:

- *not knowing what you know*
if employees increasingly have trouble knowing which colleague knows what or when it is cumbersome to find needed information and knowledge. This will lead to individual development of knowledge instead of exploring whether this knowledge may be already present in (or outside of) the organization;
- *not learning from your actions*
when knowledge is not effectively applied in the daily routines, people do not learn from experiences, and when knowledge sharing between colleagues hardly takes place.

It is therefore recommended to adapt the way of thinking and the way of working in the organization to diminish time spent in reinventing the wheel. This implies that needed information and knowledge can be located easily and that the knowledge of colleagues is been used as effective as possible.

The literature mentions several examples that show investing in knowledge management pays off:

Company	Explanation	Bottom line results
Xerox	Access to technician's lessons learned	5-10% savings on labor and parts costs
Ford	Access to best practices	\$1.25 billion in savings
Buckman Labs	Allows employees to find colleagues with expertise and ask questions	New product sales up 50% Response to customer inquires down to hours from days
Texas Instruments	Access to best practices	\$500 million gained in free factory capacity in one year
Hoffman-LaRoche	Capture and access approval related knowledge	FDA approval time reduced from 3 years to 9 months
Honeywell	Create, capture, share and use organizational knowledge	46% increase in proposal win rate, costs were cut by 35%

Table: Examples of profitable investments in knowledge management

Knowledge sharing is about stimulating the exchange of experiences, ideas, and thoughts between people. As knowledge sharing cannot be enforced, organizations should create and sustain an environment such that people can trust each other, work together, are motivated to share ideas, and can engage in dialogues.

To realize such an environment organizations need to invest in knowledge management. But will that pay off? To answer such a question this method is developed to assess the financial yields of intended knowledge management activities.

MEASUREMENT OF KNOWLEDGE MANAGEMENT

The return on knowledge management can be measured in two ways: in standard accounting methods or through operational benefits. However, we believe that the real value of an organization consists in the knowledge of its employees. It is therefore rather complicated to express the return on knowledge management in financial terms.

We emphasize that the costs incurred from obtaining or increasing knowledge and the possible yield are unrelated for the actual value of knowledge comes from applying it. Just look at the stock value of an organization like Microsoft: it is many times larger as the accounting value of their assets. The stock value represents an indication of appreciation for their future performance (based on the knowledge of their employees).

The crux of the problem is that the traditional, standard accounting principles measure performances in the past, while the revenues of knowledge management lie in the future. It is therefore more appropriate to relate the return on knowledge management to the level of effectiveness in accomplishing current and future tasks in the organization.

ORGANIZATIONAL EFFECTIVENESS FACTORS

In our method we choose to measure through organizational effectiveness factors. These factors measure the status with respect to the way of thinking and doing in an organization. Therefore they are suitable for measuring change. These organizational effectiveness factors can be tailored for each organization, based on a specific strategy or interest. Often used organizational effectiveness factors are:

Financial revenues

Examples are direct cost savings (like less postal charges and transport costs), reduced overhead, and lower operational and administration expenses. Additionally time will be saved during accomplishment of activities.

Improved services

It seems plausible that the service to (internal and external) customers will improve. Requests for action, complaints, and so on will receive a swifter response as the needed information is more easily available. Moreover, colleagues with a certain looked-for expertise or experience can be located with no difficulty.

Personal development staff

The intended change will probably lead to a stimulation of the personal development of the employee, because it will be easier to get access to sought-after knowledge. Next to that, offering one's knowledge will become more visible and with that more recognized.

Higher quality

The quality of the products and services of the organization will most likely improve because one can use more information and knowledge during the decision taking process than before. The enhanced possibilities to exchange knowledge will most likely lead to error reduction and the prevention of blunders.

More efficient operations / best practices / lessons learned

Describing and making available best practices and lessons learned increases the learning ability of the organization. This may produce faster organizational problem solving, innovation of business processes, re-application of approaches that have been proven successful, re-usage of ideas, utilization of new insights, and improved use of scarce knowledge.

Better information flows

Giving users uncomplicated access to (actual, complete, reliable, and relevant) data, information, and knowledge components they need in their daily operations will result in timesavings. Coupled with tailoring the increasing data flows to their information needs may realize the sought after reduction of 'information overload'.

Stronger communities

Because knowledge management — through information and communication technology — can overcome the constraints of time and place, virtual cooperation is facilitated. This supports building synergy between people in different functions, separate organizational units, or various locations.

Decreased dependence on individuals

Knowledge management activities create more possibilities to secure knowledge than before. This diminishes organizational vulnerability and dependence on individuals (with for example resignation, sickness, or leave).

KNOWLEDGE MANAGEMENT ACTIVITIES PER USER GROUP

Employees that will be affected by the intended knowledge management activities, can be classified into user groups — based on their information needs and type of activities they perform. The distinction in user groups helps in refining the financial consequences because not every employee will be hit in the same way by the proposed knowledge management activities.

Examples of user groups are: managers on the central level, managers on a local level, customers, sales people, administrative personnel, production labor, information specialists, and partnering organizations. Suppose one considers implementing a new content management system for a nationwide intranet. An observed bottleneck of this intranet is its lack of actuality in its content. The intended knowledge management activity will bring direct advantages to the user group information specialists (time savings) and an indirect benefit for the other user groups (because the content will be more up-to-date).

Besides describing the user groups and their characteristics it is necessary to detail the intended knowledge management activities to see which organizational problems are addressed and who will profit most from this.

COSTS VERSUS YIELDS: A CALCULATION EXAMPLE

Investments necessary to realize the intended knowledge management activities are usually discernible. It is advised to differ between onetime costs (they can be depreciated over a period of three years) and the yearly exploitation and maintenance costs. This determines the actual yearly investment.

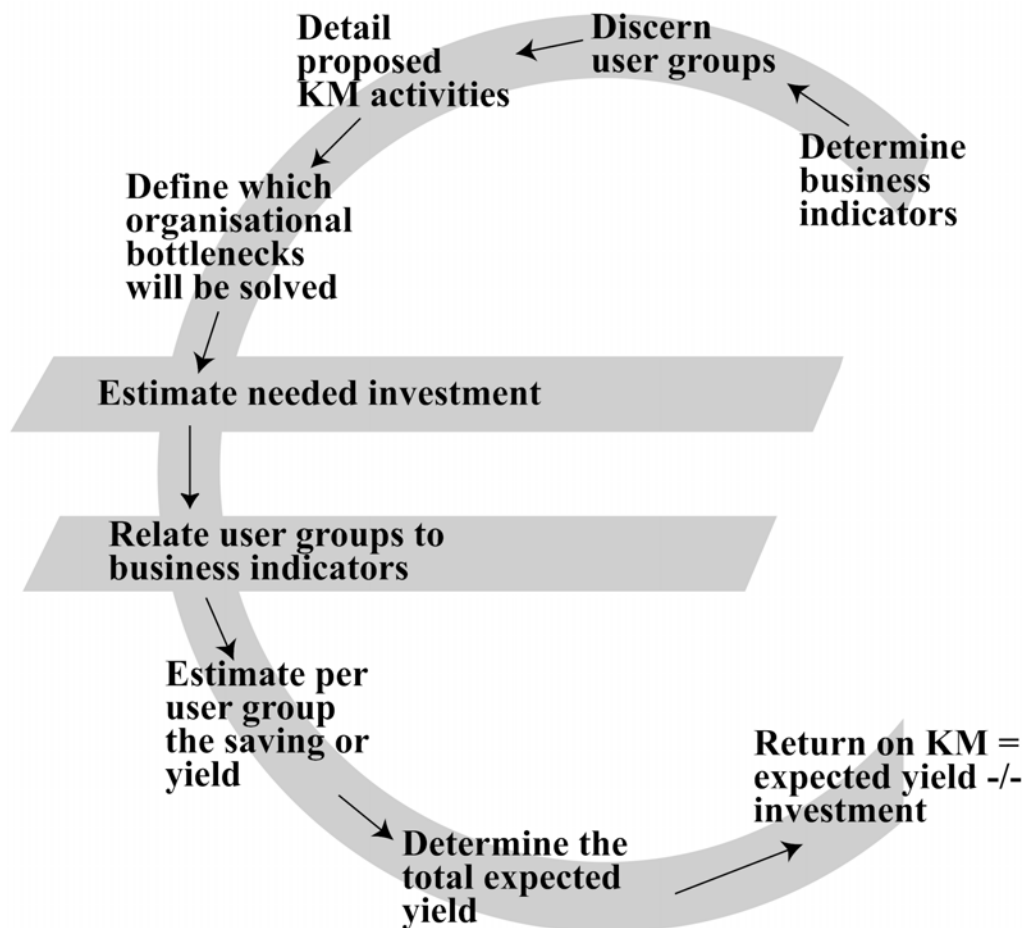
We already indicated that it is awkward to determine the yield of knowledge management. As a pragmatic solution we therefore decide to analyze for each user group all organizational effectiveness factors and assess the possible yields. We create a table in which the user groups are listed as columns and all organizational effectiveness factors as rows. The cells of this table contain an assessed quantification, i.e. savings or yields to be expected after the intended knowledge management activities are realized. This assessed quantification is related to the degree of relevance of these intended knowledge management activities to the user group.

We next assume the following: the labor costs per hour per FTE for each user group (say l); the number of FTE per user group (say f) and the number of working days in a year (say 220 working days of eight hours, this implies 44 working weeks).

We calculate the yields per year for a user group as follows: the assessed quantifications — totalized per column from the above mentioned table — indicates the number of minutes that will be saved per user group member per week, say m . The weekly yield (say w) is than $m/60 * l$. The assessed yield per year per employee in this user group (say y) is $44 * w$. The total yield of this user group (say t) is obtained by multiplying this with the number of employees in this user group, so $t = y * f$. This brings us to the full formula: $t = m/60 * l * 44 * f$.

A calculation example may clarify things further: we postulate that one hour of FTE labor costs for the user group information specialists is $l = 55$ and in total 25 FTE information specialists are employed in the organization at hand. For this user group we related each organizational effectiveness factor to implementing a new content management system. We assessed this to generate 20 minutes per week as time savings. Using our formula we get as yearly yield for this user group: $20/60 * 55 * 44 * 25 = 20.167$. (We remark that this sum is only 'spendable' when the saved time is used productively.) The total expected yield is obtained by adding the yields of all user groups.

Subtracting the estimated yearly investment from the total expected yield gives the financial return on knowledge management of the intended knowledge management activities.



CONCLUSION

We described our method to financially quantify intended knowledge management activities (see the figure above for an enumeration of steps to be taken). This approach examines the benefit of a proposed investment in knowledge management and may help the decision process on whether or not to realize the intended change.

We emphasize the indicative character of the calculations: after all the possible yields of knowledge management lie in the future. This future can be arrived at through several paths, which makes it hard to predict.

In conclusion we argue that the attitude of the people involved is crucial in attaining these yields: people have to see a profit in using the intended knowledge management activities otherwise they will not adopt this.

CONTACT

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