

How and Why to Implement Knowledge Management

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Abstract

Knowledge Management (KM) is a discipline that has existed since the beginning of the nineties yet it still sometimes feels like, and is treated like, a new idea. This article explores the reasons for this current state of affairs and tries to identify the underlying cause, or causes, for its lack of support. It seems that many companies are slow to adopt systems of KM and view them with skepticism. Others dismiss them outright before even attempting them. But why are companies skeptical about KM in the first place? There must be a common reason for its failure in so many situations. These are the questions this article seeks to answer.

In addition to readings from experts in the field, information for this article was drawn from the personal experiences of the authors as well as from interviews with an expert and the results of a general survey. Since there are many articles and studies on KM, we chose to focus on a few relevant articles that provided valuable and comprehensive information. Moreover, if we had had more time and resources, we could have conducted a survey on a wider panel of companies.

Introduction

KM is something that we have all perhaps thought about at one point or another even if we never had a name to apply to it. Any time an employee leaves a company or transfers to another department, the knowledge that they have acquired over the course of their career goes with them and this can have serious consequences for the people they leave behind. Who will continue what they have started? How will the new person know where to start? These are questions that all companies must face at some point but surprisingly few take steps to provide definitive answers to them.

KM has only become a recognized discipline in recent years and, like any new discipline, it is the subject of much debate. Some companies embrace it fully while others remain slow to adopt measures that can preserve and hand down the information and skills that their employees have gained. There are many reasons for this: some companies simply don't see the need, sometimes they have difficulty identifying what needs to be preserved or passed on, other times they aren't able to decide what methods of KM are available or could be most effective for their particular case and, of course, some companies find that the benefits of KM are difficult to measure definitively so they undervalue it and focus their energy on things that they consider to be more worthy of their time. Many of these reasons can be traced back to a single underlying problem with KM: the lack of a proper definition.

Even the website KMWorld, which can be considered an official source for all things related to KM, gives no less than three definitions with additional explanations that further expand on these definitions and you can easily find another half dozen or so by doing a quick google check. This is one of the biggest problems facing this new discipline; indeed, even the word "knowledge" itself incites confusion and disagreement. Although the words that make up the term seem simple enough, the idea that they express can be difficult to conceptualize when you consider the fact that different companies have vastly

different needs, goals, and methods of operation. “Knowledge” for one company can be theoretical (such as an employee's familiarity with all of the company's clients and services) while for another it can be more practical (such as knowing the most efficient method of piecing together a machine or the best syntax for writing a piece of code). Management of said knowledge must therefore be quite different as well and, after all, what does it mean to “manage” knowledge in the first place? This ambiguity is at the heart of the reluctance with which KM has been treated in the past. How can companies be expected to implement a new system if they don't even understand what it is?

Implementation in Companies and Gains Achieved

Although KM is a relatively new discipline that dates back 25 years, we now have enough experience to determine what the benefits derived from the implementation of a KM framework are, thanks to feedback from many companies. Measuring the benefits of KM was particularly relevant in its early days when many thought it was just a fad. To that purpose, Klaus North, Rüdiger Reinhardt and Alexandra Schmidt conducted one of the first studies on that matter in 2003 (North et al., 2003).

This study was mainly based on two sources. On one hand, 48 German enterprises were evaluated based on a standard questionnaire. On the other hand, a survey was conducted among the members of the German Association for KM and the Swiss KM Forum, and an evaluation of costs and benefits of KM activities was made for an example company.

The study showed mixed results. The 48 enterprises who had implemented KM frameworks had harvested benefits in three main fields: process improvement, employee performance and customers. However, the second survey reflected more skepticism towards KM, in the sense that the enterprises showed, at best, a medium level of expectations. This gap can be explained by the implementation quality of the KM programs involved. The 48 participants of the first survey had implemented high-quality KM processes, whereas the participants of the second survey had implemented medium or low-quality KM processes.

This study was relevant, as it was one of the first conducted on KM benefits, but in order to have good understanding of KM benefits, one must consult other studies. One key aspect that arose from academic research conducted on KM is that one of its key benefits, the one from which all other benefits derive, is to capture explicit and tacit knowledge (Vandaie, 2006, Rubenstein-Montano et al., 2001). “Explicit knowledge is that which has been codified in formal language. It can be represented, stored, shared and effectively applied. Tacit knowledge is knowledge that is difficult to express, represent, and communicate (Rubenstein-Montano et al., 2001, 12).” Tacit knowledge is not easy to formalize, but being able to transfer and manage it gives competitive advantage to the companies (Vandaie, 2006) and this formalization can be achieved by using systems thinking frameworks (Rubenstein-Montano et al., 2001, Schiuma et al., 2012). As knowledge sharing cannot rely only on technology, systems-thinking considers problems in their entirety, and provides an overarching framework that is useful for KM, by allowing a transition from single to double loop learning.

Another question that arose was whether it was possible to determine if KM was only suited for big companies, or if small and medium companies could also benefit from the implementation of KM frameworks (Edvardsson et al. 2012). This study concluded that SMEs (Small and Medium Enterprises) could “benefit from KM activities with regard to employment development, innovation, customer satisfaction and organisational success”, while addressing topics such as tacit knowledge in a different manner than their larger counterparts.

Results from the Survey

To aid us in forming our conclusions about the state of KM today, we sent a brief survey to the companies partnered with the University of Paris Diderot's technical writing program. Of these 20 companies, 5 answered to our survey. The first question we asked was if the companies had implemented a KM framework, and based off this answer, we asked the following questions:

- If the company had implemented a KM framework: What are the benefits they gained, what difficulties did they have to face, what tools and methods did they use?
- If the company had not implemented a KM framework: Why did they choose not to do so (lack of interest, lack of time, etc.), did they plan to do so in a near or distant future?

Based on the answers we gathered, we can conclude that the practice of KM is popular today. Most of those who responded were either in the middle of setting up such a system or had one already in place. Those who had a system in place agreed that it was an asset to the company and helped employees to do their jobs better. The companies who responded to us stated that KM helped them to keep teams and projects organized and identify those that were least organized. The latter of these they viewed as being most "at risk" so we can deduce that a system of KM also means a reduction of risk for these companies. Among the other benefits cited were the normalization of documents, helping them to obtain and maintain a more coherent line of products and a more simplified means of finding information.

Of course, the implementation of any new system is not without its risks. The companies who responded to us also stated that internal politics and a resistance to change were a major difficulty that needed to be overcome before a system could be finalized. These in turn contributed to other blocking factors such as miscommunication and a lack of investment on the part of management. Such problems are not unique to KM, of course, but these findings underline the concern that KM, though popular in the professional world, is still facing resistance.

Personal Experience from the Authors

This section presents our personal experiences from our year of internship in two different companies. In one company, Company 1, no system of KM is present. In the second company, Company 2, a system of KM already exists.

Company 1

In the first company, a telephone communications software developer based in France, there isn't a coherent KM system. Instead, information is shared and preserved in a loose manner by means of a company wiki and a facebook-style social networking platform. The wiki serves as a more permanent, long-term means of storing information and it contains many procedures that explain how to generate documentation or install the various software that the company uses. The social network, on the other hand, contains answers to questions that people have about ongoing projects or concerns of the company.

The problem with both of these is that the information contained within is not necessarily reliable enough to be taken at face value due to a lack of quality control. In the case of the wiki, sometimes procedures change but they are not updated in the wiki since this is low on everyone's list of priorities. In the case of the social network, it is difficult to determine how relevant the information is since it really just consists of snapshots of conversations about ongoing projects and doesn't represent the final state of those projects

once they are completed since people rarely come back to update these posts once they have an answer to their question. Therefore, it's usually necessary to follow up on anything you read there in order to find out if anything changed about the status of a project in the time since the conversation was posted.

In addition to these methods, employees also use git and RTC to share information about tickets and the documentation for products also serves as a kind of archive of past projects and the work that was done on them. The documentation is frequently used by engineering teams as a reference guide when they are updating features.

Company 2

In the second organisation, the IT production department of a French bank, a complete KM framework has been implemented under the supervision of a dedicated team. The importance of having a KM framework is promoted by the top management who sees in KM an effective way to shorten the period required by a new hire to become fully operational. The KPI (Key Performance Indicator) to determine if KM initiatives and actions are efficient is to measure the requests from business users linked to KM.

Employees use many tools such as SharePoint, a wiki, and document libraries, that allow them to provide status updates on their work environment, IT processes, business processes and applications. Each development team has its own shared space on which documents such as FAQs, schemes and how-to's can be uploaded, and it is their responsibility to keep the documentation up-to-date. Moreover, employees use many kinds of media to formalize knowledge, such as face-to-face training and information sessions.

Communications are made to make sure that all the teams understand the KM process and know their roles in that process (process owner, content manager, contributor).

Specialist Interview

In order to gather some relevant information regarding KM practices in corporations, we decided to interview some subject experts. Vivien Girard, KM responsible in a large investment banking group, addressed the following ideas, which we find interesting to share as they come of a KM professional that has implemented a complete KM framework in his company.

First and foremost, one should always keep in mind that KM deals with humans, and should not only rely on technology and tools. As a consequence, even though management of technical resources can be automated, it is more difficult to do the same with KM. Actually, it would be possible to share knowledge with no tools at all, not even paper. Druids, in ancient times, shared their knowledge orally.

There are two ways to conceptualize KM. The first is to consider that it must be structured, which involves a lot of work on norms and standards. The second is to consider it a kind of "chaos", but one which tools allow us to organise. For example, a library is very well organised, whereas a wiki is less so, but the two tools have the same purpose: to provide information.

The main issue that companies face when dealing with KM is how to measure its efficiency. One solution is to determine when a new hire in a company becomes fully operational and independent. But in that case, one has to decide how we determine if an employee is operational. In fact, measuring the efficiency of KM is a key topic, as many companies are reluctant to grant budget for projects on which they are unable to have KPIs. Another issue is to overcome the obstacles to KM, one of which is the

withholding of information. Some people do not wish to share their information because they believe that the knowledge they possess makes them indispensable. This is a paradox of KM: it claims to value human assets, but it can also act as a force that allows companies to get rid of its employees.

As a conclusion to that interview, we can state that the remarks and ideas expressed by Vivien Girard corroborate our view and thoughts on KM, in the sense that they focus on the importance of conceptualizing and structuring KM, and keeping in mind that KM is not a standalone practice, but is part of a bigger picture with other aspects of the running of corporations, the first of them always being human resources.

Reasons for Not Implementing / Lack of Interest / Failure

There are many reasons for which companies are reluctant to implement a KM framework, or fail in their attempt to do so. We can identify two cases. The first case is to consider that KM is useless. The second case is to consider that KM is useful, but people are unable to implement a successful KM framework due to a lack of proper objectives, tools and methodology.

As stated above, some believe that KM is useless. Some studies have addressed this topic (Wilson, 2002). According to T.M. Wilson, KM is nonsense, a managing fad promulgated by consultant companies that relies on the management of information and the effective management of work practices. Indeed, the effective management of work practices is based on a utopia in which companies are aware that their workforce is a valuable resource, whereas in the real world companies don't hesitate to get rid of their employees when they are no longer needed. This study, although valuable, appears to be overly harsh in its rejection of KM, as it has been since proven that KM is useful and valuable, as long as it is done with a proper understanding of its stakes and its methodology.

Another study conducted on that matter (Ibrahim, 2010) highlighted six main criticisms leveled at KM as a concept:

- Poor Conceptual Understanding: Knowledge, and more especially tacit knowledge, is difficult to control and put in a framework.
- Lack of Common Framework: There is no common, generally accepted framework.
- "Rebottled Old Wine": Some claim that KM is nothing new, and that it is just a new way to deal with concepts and ideas such as Scientific Management, Organisational Learning and Business Strategy.
- Bandwagon Effect: Many companies have developed KM without understanding the meaning and implications of knowledge.
- Success or Failure: It is argued that 84% of all KM initiatives will result in failure.
- Value and Measurement: The value of knowledge is not easy to establish.

Other authors have addressed the errors that could cause a company to fail in its attempt to develop a KM framework. Liam Fahey and Laurence Prusak have listed "The Eleven Deadliest Sins of KM" (Fahey et al., 2008). Among them, the most relevant is the lack of development of a working definition of knowledge. Many of the other sins listed derive from this lack of definition.

As we can see, the lack of a proper definition, not only of KM, but also of knowledge, and the lack of a proper framework are the main reasons that could lead a company to show no interest in KM, or to fail in its attempt to develop KM.

So what, then, is a proper definition? Clearly there is a need for a definition that everyone can agree on if we are to even begin to reach an agreement on the proper ways to implement Knowledge

Management. Perhaps the easiest way to reach such an agreement is to define KM in the simplest possible terms. We would like to propose the following definition as a starting point: KM is a system of methods and tools that help a company's employees and executives to pass on and share between them the skills and information that they need to successfully perform their jobs". This, at its most basic level, is the goal of every Knowledge Management system regardless of its complexity.

Conclusion

From our analysis of the state of the art and our research on KM, we can conclude that many if not all of the problems facing the acceptance of KM in the professional world today can be traced back to one problem: the lack of a clear basis from which companies and individuals can form their opinions. Since even something as simple as the mere definition of KM is the subject of considerable debate, one can ask how we can we expect to reach an agreement about anything related to it.

If we only go by the articles and discussions available online, KM seems to be a confusing maze of partial theories and vague guidelines. It isn't surprising, therefore, that some companies should be slow to flock to it. People are wary of things they don't understand and even more so when money and time are on the line. Where is the incentive for the CEO of a large company to invest resources in implementing a new system if there is no certainty that the system will be profitable—or if it will even work at all.

Of course, we can argue that there are many examples, such as the testimonials in our survey above, to show that KM works but there again we have a problem: no two companies use the same system. In fact, if we take any two companies and compare their KM systems, sometimes we can have difficulty labeling one or the other as KM at all since many KM practices have applications in other domains or can be used independently without a well-defined KM system behind them. An example of this would be social networking systems which can be integrated into a wider approach to KM but can just as easily exist by themselves, functioning more as an aid to communication than as a system for the sharing of information. In such cases they are barely any better at passing along and storing information than an e-mail inbox.

The problem here is that the individual needs of each company are different enough that every system of KM needs to be tailor-made to that organization. Certain types of information that are important to one company may be completely irrelevant to another. There is no single, established formula that can be applied evenly in all cases and that brings us to our main conclusion: before any company can examine the question of whether or not they should implement a system of KM, it must first examine the question of what KM means for that company.

They can start with the simple definition of KM. The one that we provided above is meant to break the discipline down to its most basic elements, its most basic goals. This is a good starting point because it identifies the first inciting factor, the why of KM. The next thing to consider is how the company should define knowledge. This is the point where individual use-cases start to diverge because each company has a different opinion on the matter. However, in the context of KM, knowledge should be defined as the information that you want to preserve. This is the what of KM.

On an operational level, we wish to focus on three topics, that we consider of the utmost importance and that every company willing to implement any KM framework should always consider. Since we plan to pursue our career in the technical writing domain, which is linked to KM in the sense that it aims to

provide persons with comprehensive knowledge on how to use a product and/or perform a task, we strongly believe that these guidelines will be of great use for us:

- The first is to have clear objectives, and to set indicators that allow you to measure them. Whether your objective is to reduce the number of requests or calls made to the hotline, to reduce the duration of the on-boarding process of new hires, to harmonize the existing documentation and/or to create new templates and procedures, you must be able to track your results in order to be able to make any changes.
- The second is to be able to provide figures, that is to say the amounts spent on the project, and the money that the project will be able to save. Managers are more and more urged to save costs, and the more you are able to demonstrate that KM initiatives can achieve cost reductions, the more likely you will have resources to achieve your KM implementation. KM initiatives can consist in such things as the design and implementation of shared document libraries, wikis, and presentational or digital training to name some examples.
- The third is to never forget that corporations are dealing with humans, and to be prepared to show pedagogy and face criticisms and, sometimes, the reluctance to change. As a corollary, always consider that once a KM framework has been implemented, the running process is equally important, and requires training, tuning and gathering of feedback. To do so, it is important to communicate on KM and explain to people why this matter is important and how it will improve their working experience and efficiency, and to take into account their remarks and questions in order to adapt KM initiatives.

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