

Exploring Failure-Factors Of Implementing Knowledge Management Systems In Organizations

ABSTRACT:

Nowadays organizations have realized the importance of knowledge and knowledge management. The organizations know that machines, equipments, and building cannot count as the most important properties of the organization. It is clear that the most important property of every organization is organizational knowledge and correct management of it will cause core competencies for the organization and also victory against the competitors. Of course knowledge and knowledge management both are important for an organization, but are all knowledge management efforts in the organizations successful? If knowledge management efforts fail in an organization, what are the main failure factors of this phenomenon? This paper attempts to answer this question by analyzing a failed case study in implementing a knowledge management system .

Introduction

Knowledge is power, especially in the Internet age. That's why companies are trying to figure out precisely what their customers want and how to get it to them before the competition does. Whatever you call it as collaboration, decision support, knowledge management or something else - it's the bedrock that is supporting today's corporate strategies. The management of the intellectual capital of the organization has become increasingly important in the knowledge-based society. Both commercial and public organizations recognize the significance of being effective learning organizations and therefore there is a growing need for individuals who have the appropriate training and experience in the Knowledge Management function. Knowledge management creates a new working environment where knowledge and experience can easily be shared and also enables information and knowledge to emerge and flow to the right people at the right time so they can act more efficiently and effectively (Smith,2001).

Knowledge management is also known as a systematic, goal oriented application of measures to steer and control the tangible and intangible knowledge assets of organizations, with the aim of using existing knowledge inside and outside of these organizations to enable the creation of new knowledge, and generate value, innovation and improvement out of it (Wunram, 2000; pp.2-13).

The Gartner Group (1998) cites that: "Knowledge Management promotes an integrated approach to identifying, capturing, retrieving, sharing, and evaluating an enterprises information assets. These information assets may include databases, documents, policies, procedures, as well as the un-captured tacit expertise and experience stored in individual's heads." Trouble is, many of these costly, information-laden efforts are doomed. Some researchers peg the failure rate of knowledge management projects at 50%. But Daniel Morehead, director of organizational research at British Telecommunications PLC in Reston says the rate is closer to 70%. "Most knowledge management projects simply don't hit their stated goals and objectives," Morehead says. So that 70% doesn't mean they fail totally - it means that they don't accomplish what they set out to do. Liam Fahey, an adjunct professor at Babson College in Wellesley, says the higher failure rates can be attributed to knowledge management (KM) initiatives that rely too heavily on technology. Just moving data around may or may not add value to anyone in the enterprise (Ambrosio, 2000).

Churchman (1971) has emphasized that to treat knowledge as a collection of information is to rob the concept of all of its life; he posits that knowledge resides in the user and not in the collection. Similarly, Nonaka and Takeuchi (1995) had proposed that knowledge, unlike information, is about *beliefs* and *commitment*. On a complementary note, Davenport and Prusak (1998; pp.21) have defined knowledge as deriving from minds at work: "Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms."

Knowledge is at the heart of knowledge management. In literature, a lot of studies have been suggested covering the role of knowledge in improving the performance of management. However, there are few studies about investigating main failure factors in the arena of knowledge management and this subject encouraged the authors of this paper to focus on it. Through literature review about knowledge management failure factors Malhotra (2004) cites that: "...Prior discussion has highlighted that knowledge management systems fail because of two broad reasons. First, knowledge management systems are often defined in terms of inputs such as data, information technology, best practices, etc., that by themselves may be inadequate for effective business performance. For these inputs to result in business performance, the influence of intervening and moderating variables such as attention, motivation, commitment, creativity, and innovation, has to be better

understood and accounted for in design of business models. Second, the efficacy of inputs and how they are strategically deployed are important issues often left unquestioned as 'expected' performance outcomes are achieved, but the value of such performance outcomes may be eroded by the dynamic shifts in the business and competitive environments...". Ambrosio (2000) cites that the most common error in implementing knowledge management system is failing to coordinate efforts between information technology and human resources. He also says that starting with a low-profile project, not changing the compensation scheme to reward teamwork, building the grand database in the sky to house all your company's knowledge, and assuming someone else will lead the change are the other common errors during knowledge management implementation in the organization that cause failure in KM efforts. Malhotra (2004) also notes that design of KM system should ensure that adaptation and innovation of business performance outcomes occurs in alignment with changing dynamics of the business environment. Simultaneously, conceiving multiple future trajectories of the information technology and human inputs embedded in the KMS can diminish the risk of rapid obsolescence of such systems.

Working with leading companies and government organizations, the IBM Institute for Knowledge-Based Organizations has identified a number of important roadblocks that organizations typically face when implementing knowledge management programs. These roadblocks are (Fontain & Lesser, 2002; pp.2-5):

- Ø Failure to align knowledge management efforts with the organization's strategic objectives.
- Ø Creation of repositories without addressing the need to manage content
- Ø Failure to understand and connect knowledge management into individuals' daily work activities
- Ø An overemphasis on formal learning efforts as a mechanism for sharing knowledge
- Ø Focusing knowledge management efforts only within organizational boundaries.

Although these are not meant to be an exhaustive list, they represent issues that can hinder the effectiveness of a knowledge management effort, costing organizations time, money, resources and—perhaps, most importantly—their ability to affect meaningful business results.

In the next part of the paper we explore a *fictional* case study about failure in KM efforts, the Calibro company. The complete documents of case study are available at the reference that the readers can refer to it for more information (Hall, 2004).

An Introduction To Calibro Company

Calibro is a large European pharmaceutical company based in Switzerland with research labs around the world. The overall goal of implementing knowledge management system in Calibro was to provide a collaborative working environment for distributed research staff working on new drug development. The plan was that it would comprise the "Knowledge Store" and a series of "e-rooms". The Knowledge Store would hold documents of common interest to the researchers (supplied by them). The e-rooms were "places" for discussion groups to "meet". It was anticipated that this project would increase knowledge sharing and collaborative working throughout the firm, particularly across national boundaries, and that this would lead to faster drug development amongst the 1000 distributed research staff. This project was named Baleine Bleue (BB).

The Initiative For Knowledge Management System

The initiative for Project BB resulted from a chance conversation in 1997 at an internal conference between a leader of one of the big research labs - Pascal Delacarte - and Sandy McDonald, a new member of staff who had recently been recruited to the Internal Communications Division of the company from a large US law firm. In the law firm Sandy had had some involvement in intranet development as part of its knowledge management strategy. She convinced Pascal that the existing technical infrastructure at Calibro could be exploited further if some efforts were put into turning it into a platform for the better organisation of existing resources, as well as the creation of new facilities for communication between staff at the different research centres across the world. Pascal was intrigued by this because he had just read a review of *Working knowledge* (Davenport & Prusak, 1998) in a management magazine. He was also very interested to hear from Sandy that it was possible to have a "knowledge management system" and thought that this would overcome numerous problems with the information infrastructure at Calibro. For example:

- Ø Many so-called internally developed "web resources" had been created with initial enthusiasm, but were later neglected and eventually abandoned (yet were still accessible on the system).
- Ø There were many dead links on the system.

- Ø In cases where good information content existed it was often difficult to find because (a) it was poorly indexed and/or (b) resources were held on "private" servers. This was a particular problem if the originator of the material moved departments or left the company.
- Ø Even access to more "official" company resources, such as clinical trial information and the main customer information database, was difficult due to poor awareness of its availability and poor indexing.
- Ø There was a huge diversity in formats of information held.
- Ø To date, senior management had shown little interest in knowledge management.

The BB Project Team

Sandy McDonald was keen to make her mark in the company as a new employee with bright ideas and she persuaded Pascal to second one of his junior research staff, Karl Schwartz, to Internal Communications to help her design a prototype "knowledge management system". A placement student in Internal Communications, Paul North, who had been looking for a suitable piece of work that would tie in with his degree in Marketing, also joined the team. They christened the project Baleine Bleue (BB) and started their work by reading up on KM and attending some commercial training courses. Sandy was confident that it would not take long to get a prototype up and running, and did not think it necessary to specify a timescale for the work. There was no separate budget. The project itself was funded entirely through Internal Communications and Karl's salary continued to be paid out of the budget of Pascal's research lab.

Recruiting Support For The Project

Because none of the BB team had been in the company for long, they used an organizational chart to identify who to talk to about the proposed work. Because of cost restrictions, they were only able to meet face-to-face with people based in Geneva. To encourage research staff in other locations to participate in the planning of the knowledge store and e-rooms, Paul created a project web site with discussion space on the corporate intranet, then advertised these using the e-mail distribution list for drug development staff. The reaction from the people met face-to-face was that they were happy to offer broad notional support to BB, but when asked to commit to the development of the system they were reluctant to do so.

Most cited a lack of time and the pressure of other priorities. Some were resistant to the possibility of change to their work practices.

The BB team was disappointed that there were few hits on the project web site and not a single entry in the discussion space. There were some rather negative reactions to the e-mail announcement of the project. Some people were concerned that this had come "out of the blue" and were suspicious that the initiative appeared to be instigated by people in marketing. They could not understand why management had not made the announcement. Some even said that although the current means of executing collaborative work were not perfect, they were workable. Despite these set-backs, however, Sandy was determined to follow her idea through.

Development Of The Prototype

As a result of attending some commercial KM training courses the BB team was approached by "KM solution" vendors offering off-the-shelf KM applications. Some time was invested in evaluating the available software. However, it continued to be the preference of the BB team to develop a system in-house. This was mainly on the basis of cost, and also because no off-the-shelf package appeared to match the requirements of Calibro. Karl took charge of the developing the infrastructure for the Knowledge Store, with the intention of integrating the e-rooms later.

It was at this point that Sandy realised that she did not have an adequate technical skills set to help with this part of the work. The project was taking much longer than anticipated. Meanwhile Paul was struggling to make sense of test documents to be loaded into the Knowledge Store. He had problems persuading people in the labs to provide him with material that could be mounted on the prototype system, and, when he did manage to acquire material, his lack of subject knowledge made it difficult for him to work out the most appropriate location for the resources. Sandy suggested that a taxonomy should be adopted for all material: potential end users argued that if the system allowed free-text searching there would be no need for a taxonomy.

Demonstration Of The Prototype

The BB team now realised that the project was much bigger than originally envisaged. If they were to implement their knowledge management system, they needed much more support from the business. They needed to demonstrate the prototype as soon possible that they had a functioning tool. This would attract

more support to the project. Nine months after Pascal and Sandy's initial conversation, demonstrations of BB were arranged locally and drug development staff showed some interest. They said that they looked forward to using the Knowledge Store when it contained valuable content. Until then, they would continue to use their existing mechanisms for storing and finding information. Since the e-rooms were not ready to demonstrate, it was not possible for the drug development staff to comment on their potential.

The End Of BB

Not long after the demonstrations Karl announced that he had decided to return to research work and left to start a new job at a different drug company. Pascal refused to second another member of staff to Internal Communications. This left Sandy and Paul on their own, with just three months left of Paul's placement. When Paul returned to university in the autumn the prototype was still not fully functional. Sandy did not have the skills, time or enthusiasm to continue the project on her own. It was abandoned.

Analysis Of Knowledge Management Failure Factors In Calibro

As it was explained in the previous section, first idea of implementing knowledge management system in Calibro company was a conference that manager of Calibro had taken part in it and also studying a book about knowledge management. Even after the manager decided to implement a knowledge management in his company, he himself didn't study more and hadn't deep understanding about the subject. These subjects caused that he didn't support the project in different times and specially at some milestones that the project needed direct support of management. So we can say that lack of commitment and support of management had a main role in failure of knowledge management project in Calibro. Also this subject that the management was not familiar with knowledge management dimensions was effective in failure.

The other factor of failure was selecting someone for leading the knowledge team that was not sophisticated enough to manage the knowledge project. Manager of Calibro made a mistake by this wrong selection because in spite the fact that the knowledge management leader showed tendency to manage the project, he/she didn't have expertise about knowledge management and this made many problems during the implementing of the project. The selected leader couldn't control and manage the project effectively and also couldn't pass it safe through crises and solve the bottlenecks.

Unfortunately the employees who were selected as the knowledge management team members didn't have competency for this duty. They were also unconscious and didn't have sophistication and knowledge about the dimensions of knowledge management. It shouldn't be forgotten that the variety and the number of employees who were involved directly in the project were not enough (only three persons). Also there were only one person who was selected from the company for the team, and he hadn't high rank of authority in the company. So the selected team hadn't good familiarity with the organization and its internal relations and occasionally the project implementation faced with crises. Also lack of someone that hadn't higher rank of authorities in the company caused that knowledge management team hadn't had enough strength for maneuvering in the organization.

Wrong planning and incorrect forecasting about the dimensions of the project were the other important failure factors of the project. Knowledge team leader didn't consider that the project took so long and due to increasing the time of project, he/she missed control on it.

Considering the fact that implementing an important project such as knowledge management system needs money, it is necessary to assign separate and suitable budget for it. But in Calibro this wasn't done and the project started and continued by current budget of Calibro laboratories. This faced the project with financial problems because an independent budget hadn't assign to it.

Lack of cooperation between organization employees and knowledge management team is the other factor of project failure. We should consider the main reasons of this in some topics such as lack of suitable infrastructure, lack of transparent support of management between employees, organizational culture and finally resistance against the change. When the employees understood that top management didn't support the project directly and also didn't know the project as a high priority, so they didn't cooperate with the project and said sentences such as: "... I have another important projects in my hand, the priority of this project is lower than current projects, I don't have enough time to do this projects, ...".

Organizational culture also plays an important role in knowledge management projects in the organizations, but in Calibro, suitable culture was not prepared. The employees were also worry about the changes during knowledge management systems implementation and top management and the team leader didn't have any program to conquer the resistance against the change. This factor was the other reason of knowledge management system failure in Calibro company.

As the current systems of Calibro had not been studied completely, knowledge management team faced with many problems during the creation of knowledge storage bases and repositories especially when they understood nonconformities between new systems and current systems. For solving these problems, it was necessary to spend much more money and time, so this factor also played an important role in knowledge management failure.

The ten most important failure factors of knowledge management system implementation are summarized below:

1. Lack of familiarity of top management with dimensions of KM and its requirement
2. Selecting an unsophisticated and inexperienced person for leading KM team
3. Improper selection of knowledge team members
4. Wrong planning and improper forecasting for the project
5. Lack of separate budget for knowledge management project
6. Organizational culture
7. Lack of support and commitment of top management
8. Resistance against the change
9. Inability of KM team for distinguishing organizational relations
10. Nonconformities between current systems and new systems

These factors and the relations between them have been illustrated in Figure 1. As it has been depicted in the figure, lack of CEO support and commitment is located in the center of the figure that shows the violent importance of this factor clearly. Considering the lack of CEO support and commitment, some factors follow it. Improper team leader selection, lack of separate budget for knowledge management project, lack of familiarity with knowledge management dimensions and also lack of cooperation between knowledge team and employees are the factors that run after lack of CEO support and commitment.

Of course when the CEO himself doesn't support the project directly and doesn't commit to it, he is not sensitive to selecting a meritorious person for leading the project. He also doesn't feel that he himself should understand knowledge management deeply and because of lack of familiarity with the dimensions of the project, he will not support allocation a separate budget for it, so the project faces with financial problems during implementation. Also when the other employees understand that CEO himself doesn't mind and support the project, so they don't cooperate with knowledge team members and the project faces with some obstacles in progress . It is also depicted in the figure 1, knowledge team leader plays an important role and if he/she isn't selected properly and doesn't have sophistication, the project will face with some problems such as incorrect planning and forecasting. Also as the team leader doesn't have enough knowledge and sophistication about the project , so he/she will mistake in selecting team members including problems about the number and also variety of specialists that are needed for putting the project forward. Lack of enough knowledge for team leader also makes some problems for adapting available system with new systems. It shouldn't be forgotten that some organizational problems such as available culture and organizational relations, existing systems and also resistance against the change are the other main factors that play important role in failure of knowledge management efforts, specially the factor of resistance against the change is a subject that should be studied carefully by CEO and knowledge management team leader through organizational culture.

Conclusion

Nowadays the managers have understood the importance of knowledge and knowledge management in the organization and many of them are following the implementation of knowledge management system through their organization. On the other hand many of them are worried about inability of correct implementing of knowledge management system in their organization and their knowledge management project faces with failure.

In this paper, after some explanations about knowledge management , the main failure factors of implementing KM system in pharmacist company Calibro have been analyzed. Through the analysis, it is clear that lack of top management commitment and support, improper selection of knowledge tem leader and members, improper planning, lack of separate budget for knowledge management project, organizational culture, lack of cooperation between team members and employees, and resistance against the change are the main failure factors of knowledge management system.

