An Application of Knowledge Management for Knowledge Distribution within a Small Consulting Firm

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Knowledge is a core competence for many types of businesses and especially in a consulting firm. Because of this, Knowledge Management can be viewed as one of the most important processes within this line of work. The purpose of Knowledge Management is to provide a structure for knowledge distribution within the company so that vital knowledge is retained in the system and thus preserved even if a consultant decides to leave the firm.

The intention of this paper is twofold. The first aim is to give a short overview of the theories on knowledge and Knowledge Management. The second is to give an example of how these theories were applied to a small consulting firm in order to create a system of knowledge distribution within the firm.

Introduction
Knowledge and Knowledge Management is, as stated above, of immense importance to the consulting firm. This type of business is very vulnerable if it cannot find a way to distribute the collective knowledge of the consultants, so that the knowledge is not held by only a small number of employees.

Knowledge
Knowledge can either be articulated or tacit. Articulated knowledge can easily be transferred from one person to another because this type of information can effortlessly be expressed verbally. [1] Conversely, tacit knowledge is inherently hard to put into words and hence be hard to communicate to others. This type of knowledge can only be transferred by close co-operation among employees. [2] For clarification and as an example, tacit knowledge is acquired by a new recruit about the company culture of his new firm.

Knowledge can also be perceived as abstract or specific knowledge. Abstract knowledge goes beyond the surface and gives an understanding of the dynamics present in the processes of the company. [2] Specific knowledge, on the other hand, is present in empirical situations and is also far more complex than abstract knowledge. Because of its complexity, it is difficult to convey, but at the same time easy to copy and apply in similar situations. [2]

It is also possible to make a distinction between individual and collective knowledge. Where the former is the knowledge that is individually held by a person, the latter is the knowledge held within the company. [2]

Knowledge transformation.

Figure nr 1. Knowledge categories and transformation between them. [2]
Articulation is the process in which tacit knowledge is made into articulated knowledge. An example of this process is when the knowledge of an employee is incorporated into a process or a product. [2]

In contrast to the former, internalization is the process in which the consultant absorbs the articulated knowledge. [2]

In extension, the knowledge of an individual is transferred to the whole organisation. Tacit knowledge is spread by personal contacts and articulated through speech and writing. [2]

As opposed to extension, appropriation is the process in which the consultant makes the organisational knowledge to its own. [2]

Generalisation occurs when experiences (specific knowledge) form patterns from abstract knowledge. [2]

Application takes place when abstract knowledge is used in specific situations. [2]

Knowledge Management
A knowledge strategy can be defined as follows:
“Knowledge strategy is the allocation of resources to knowledge creation and transfer for the sake of developing existing and new knowledge domains.” [3]

The Knowledge Management strategy which an organisation chooses to follow is by no means arbitrary, but must be carefully selected with reference to the company’s mission statement and how the company creates value for its customers. An attempt to follow both strategies, or implement the wrong one, can quickly lead to failure. [4]

Implementation of a system of Knowledge Management.
It is of great importance that a Knowledge Management system is truly integrated into the company’s culture. The employees must have a positive attitude towards contributing their own knowledge. [5] A great challenge for a consulting firm is creating incentives in order to influence its consultants to contribute their knowledge to the system. The company must develop a system of rewarding their employees for their efforts. [1]

There are two different approaches to building a system of knowledge distribution. The first is a decentralised system for Knowledge Management and the second is a centralised system. [5]

The decentralised system is characterised by the fact that the initiative for the system often comes from the consultants themselves. The company usually contributes unique solutions to each of its customer’s problems. It is therefore very hard to categorise the valuable knowledge that can be gathered from each project. It is up to the individual consultant to assess what knowledge should be added to the system. The system has a low administrative cost. It can be seen as a disadvantage that the contribution of relevant knowledge depends on the conscience of the consultant because it is in the nature of human beings to be somewhat lazy at times and there is a risk that the employees will prioritise some other matter that they find more pressing. [5]
In the case of the centralized system, the initiative usually originates in the management of the company. Here, there is a large central administrative organisation which has the purpose of gathering and distributing information throughout the organisation. The downside is that this arrangement thus has a great administrative cost. In this system, it is very common that it is specified what type of information should be gathered from each project. [5]

**A study of a small consulting firm**
The company that has been studied is active in the field of Supply Chain Management. The focal point of the study was the firm’s simulation group.

This group consists of five consultants and offers its customers unique solutions to a wide range of problems. The structure of the entire consulting firm is very flat and decentralised.

A simulation project strives to describe and model the behaviour of a situation that can be observed in real life. Even if the models in them self are very different from each other, there are some sub processes that can be found in many simulations projects, e.g. elevators.

**Proposed Knowledge Management System**
When implementing a system of Knowledge Management, the forces of knowledge transformation will also come into play. (See Figure 1)

Due to the fact that the solutions which the consulting firm in our study provides its customers with are at most times highly tailored and functional, we think the **personalisation strategy** should be used as a main strategy. Documented explanations, examples of solutions, meetings and soliciting colleges are examples of knowledge, which is suitable to be transferred by this strategy.

The theory in this field emphasises that one strategy should be used as the main strategy and the other as supplementary. The ratio of these should be 80/20 percent. [4]

However, there are numerous small parts in a simulation model that are put together and used in a similar way in many different projects. We think that these kinds of solutions, which can be copied and reused many times, will be best preserved using the **codification strategy**. The strategy will serve as a good supplement to the personalisation strategy and can preferably be used to document codes that are the essence of the sub-processes in the simulation models. This strategy will make up for about 20 percent of the knowledge transfer - in line with the literature.

It is our belief that the company in question should have a **decentralised system**. The reason for this choice is that this kind of system harmonizes with the mission statement of the company and the fact that they provide highly customized solutions. The initiative for the system comes partly from the employees, but also from the management. Another argument for the decentralised system is that there is not room in the budget for a high administrative cost. In a decentralised system, it is up to the consultants themselves to select and contribute the knowledge gained from the projects. As mentioned earlier, there can be a risk that the individuals will fail to carry out the responsibilities placed upon them. It is therefore of great importance that the management emphasises the value of these activities.
What knowledge should be stored?
It is vital to document simulation-specific solutions that were successful, as well as those which were not successful.

The re-use of sub-processes is also imperative. It must be possible to separate such a process from the rest of the logic in the model, which is an argument for detaching this phenomenon and storing it outside the model in order to use it as a source of knowledge.

The intention here is simply to provide the consultants with bigger building blocks for the model, and thus make it more efficient. (See Figure 2)

![Figure 2. Small building blocks are replaced by bigger ones to make them more efficient.](image)

It is also of immense interest to document the strategy or approach that has been used in creating a model, because these thoughts can be of use in building other models.

Each project also gives a participating consultant insight into a different line of business, which is good to preserve.

Time estimations for different projects and how accurate they turn out to be is also a significant aspect. If such an estimate can be made more accurate the firm stands to gain a lot.

During our study we have reached the conclusion that all information should be stored in one place as far as possible.

The system of knowledge distribution (See Figure 3) consists of a database that should contain all relevant knowledge that could be gained from the projects. We have also constructed a document for time evaluation with the expectation that this tool will, in the long run, make the time estimate more accurate.

From the Knowledge Management point of view, we have taken the liberty of creating a checklist containing useful aspects that have been found in the firm’s projects. We hope that the checklist will serve to help the consultants in deciding what information to use as input for the knowledge system.

We hope that the system will create, as well as demand, increased communication among the consultants. In fact, extensive communication is very important when the personalisation strategy is to be followed.

![Figure 3. The system for Knowledge Distribution](image)

Incentives
Incentives are essential for inspiring the consultants to develop the system of knowledge distribution and to contribute with their knowledge to it. Without incentives the employees will not work with the system and eventually it (the system) will be out of date and of no particular interest.

During our study we came to the conclusion that the biggest incentive for the consultants to contribute their
knowledge is that they themselves realise the benefit of doing so.

We hope that the use of the database will decrease the risk of encountering problems during the construction phase of the simulation model. And it will also raise the efficiency of the work associated with modelling.

In light of the efficiency gain there are two ways of using this constructively. The first is to charge the customers fewer hours but to a higher fee per hour. This approach could also lead to a higher salary for the consultants, but this might not be seen as a clear incentive as it may seem too distant for the consultants.

The other way to take advantage of the efficiency gain is to estimate the same amount of hours, as they would have done in the past. This gives the consultants more time to accurately document the projects and contribute their knowledge to the system within the budget of the project, and at the same time using the time allocated. This raises the percentage of billable time logged for each consultant, which is used as criteria for bonus, and thus as an incentive for the consultants to utilize the system of Knowledge Management.

Comments
We strongly believe that that small consulting firms stand to gain a lot by implementing a system of Knowledge Management. Such a system doesn’t have to be expensive to be effective.

During our study of the literature in the field of Knowledge Management realized that most of the theory is constructed in relevance to the big consulting firms. Our conclusion is therefore that complementary studies with a focal point on the small company are needed.

References
[5] Sarvary, Knowledge management and competition in the consulting industry, California Management review, Winter 1999