Journal of Universal Computer Science, vol. 9, no. 7 (2003), 581-591
submitted: 3/2/03, accepted: 21/7/03, appeared: 28/7/03 © *J.UCS*

The Strong Effects of the Soft Factors of Knowledge Management

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Abstract: Knowledge culture is one aspect in corporate culture. It describes, how knowledge is identified, acquired, developed, distributed, used and retained. There are tree levels with which the culture can be described: basic underlying assumptions, norms and values, artifacts. Based on this description it is possible to analyse the current culture and define measures to change it towards a more knowledge oriented culture. A survey on the wm03 had shown, that in most organization still exist an overlap or an ambivalence which is characterized by non-knowledge-oriented culture elements. For the change of culture the tools that are developed for cultural change must be adapted for the specific needs of knowledge cultural change.

Keywords: Knowledge Management, Corporate Culture, Leadership
Categories: A, H

1 Introduction

„Acquiring a feeling for one's own corporate culture and its influence on managing knowledge is, in our opinion, a very important step for the introduction of effective knowledge management" write Gilbert Probst, Steffen Raub und Kai Rombard, in what has become a standard in the field, „Wissen managen"[1] („Managing Knowledge"). In a study by the Institute for e-Management regarding knowledge management, the main topic was knowledge culture.[2] Over half of the Top 1000 German companies and Top 200 foreign companies confirm that a knowledge culture plays a decisive role in how employees think and behave relative to knowledge. In contrast, it is very difficult to describe what knowledge culture is and how it is expressed within the organization.

Knowledge culture is not only restricted to companies, although that is the focus here, but rather extends to society as a whole. The value of knowledge, the treatment of it and the framework, among them the acquisition, the preservation and the use of knowledge, influence to what degree knowledge is used for developing and ensuring the viability of the company and, by extension, the entire society.

[1] [PRR97] S. 350
[2] Institut für e-Management e.V.: Trendthemen im Wissensmanagement, Köln 2001

2 Definition of Culture

Culture is often described using indiscernible, intangible or complex terms. This suggests that what we understand by culture is difficult to grasp. There is no standard definition of the word “culture”. Edgar Schein suggested the following definition for the term “corporate culture”:

“Culture is a pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – which have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.“[3]

Culture is not simply a characteristic of our society, in companies or groups, but it also has an important function. Culture gives humans an orientation regarding how to act in specific situations. It thereby reduces the multiplicity of possible behavioral alternatives to one, which has proven to work satisfactorily based on collective experience. According to Deal and Kennedy, therein lies the benefit of a strong corporate culture. "A strong culture is a system of informal rules, which clearly states how people should generally behave. If employees know exactly what is expected of them, they will lose little time in deciding how to act in a certain situation." [4]

Each of the definitions emphasizes different aspects of the term “culture”. By investigating various definitions of culture, we identified the following characteristics of culture:

- Culture is a product of people’s collective social thinking and behavior
- Culture puts pressure on its members to conform
- Culture enables people to successfully navigate through society
- The characteristics of culture, as opposed to the concrete behaviors themselves, determine these behaviors. The corporate culture supercedes the individual who shaped the culture and outlasts their tenure at the company.
- Culture is an immaterial phenomenon that can only be described by characteristics such as values, symbols, heroes and stories
- Culture is manifested in the language, standards and behavior patterns of the social organization with their roles and rules, work and business structures and technology
- Culture has an influence on how the members of the community think, feel and act
- Culture determines behavior and orients its members regarding which behaviors are appropriate or inappropriate in a specific context
- Culture unites successful behavior patterns on a meta-level and is further developed by the experiences of its members. Culture cannot be developed according to a plan.

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[3] [Sc95] S. 25

[4] Deal, T.E. und Kennedy A. A.: Corporate Culture zitiert nach [Ba97] S.70

- Culture must be experienced and learned by new members.
- Culture is a differentiating factor in relation to other people.

A general term for culture that refers to the entire society becomes more specific within a work organization. A company creates a community by virtue of its legal structure, in which one becomes a member by signing a contract. Although this is not expressly described in the employment contract, a signature means that one accepts the culture of this community. The company is understood in such a way as a culture system, which develops its own, unmistakable conceptual and orientation models which shape the behavior of the members and the operational functional areas in invisible, but nevertheless very effective ways. Culture acts as an invisible controlling element in the organization. To a certain degree it unifies and makes coherent people's thoughts, feelings and behaviors. However, the members of the organization can only rarely label and describe the culture. One lives in it, but hardly reflects upon it. Culture develops from co-operation. It is the result of company history.

2.1 Knowledge and the Culture of Knowledge

It is as difficult to define knowledge as it is to define culture. Depending upon their approach and the questions they pose, practitioners and scientists define the term differently. [5] Nevertheless it is common to distinguish the levels of written symbols, data, information and knowledge. The transition from one level to another is viewed as an enrichment process. Written symbols become data through syntax rules. Data is then able to be interpreted within a context and thereby becomes information. Information becomes knowledge when various pieces of information can be cross-linked and used in a specific topic area.

Collective knowledge can develop only if the individuals in a company share a common context. Culture as a collective model of basic assumptions only guarantees that knowledge can be generated within a company. If this common culture did not exist, then the organization would not be able to adapt to changes.

The term "knowledge culture" goes even beyond that. It is an invisible control element related to how knowledge is treated. Susanne Prediger defines it in this way: "the fraction of these collective attitudes, capabilities and behaviors, which relate to knowledge, is called the knowledge culture of the company." [6] The most widely recognized representation of the process of generating knowledge within a company is the description of the core processes of knowledge management according to Probst. It describes, how knowledge is identified, acquired, developed, distributed, used and retained.

The type of culture has an impact on how people in the company think, feel and act; what kind of values, rituals and stories about knowledge exist.

2.2 Levels of Culture Description

The approach to defining the concept of knowledge culture not only shows that this is a phenomenon which is difficult to grasp. For the analysis and change culture it is

[5] [PRR97]S.34
[6] Susanne Prediger: Universitäre Wissenskultur im Multi-Kulti der Disziplinen, Darmstadt Februar 2002

however necessary to find a framework with which the culture can be described. A starting point for this is the following three-level model developed by Edgar Schein.

- **Basic underlying assumptions**: these are the unconscious assumptions that the members of an organization have regarding their culture. There are statements of belief , unconscious perceptions, thoughts and feelings. They cannot be seen, only felt. Their descriptions have therefore a strongly interpretive character.
- The second level are the company's **norms and values**. These usually exist in written form. However they have a very general and theoretical character.
- The third level are the **Artifacts**: These have to do with visible structures and processes. Corporate culture and knowledge culture can be simultaneously seen in the company's artifacts..

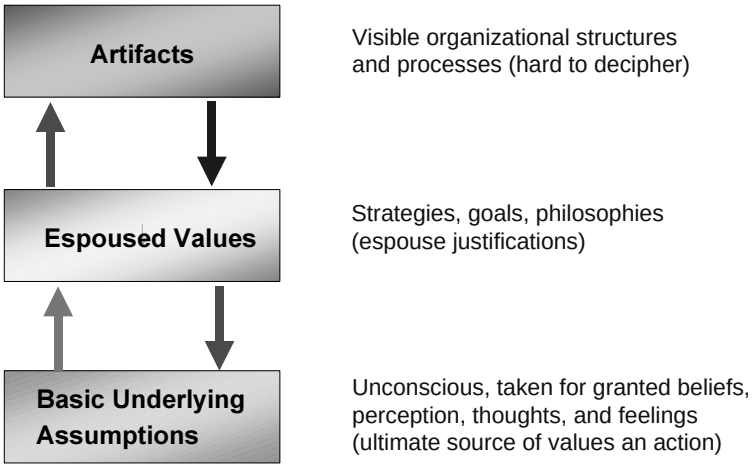

Figure 1: Levels of cultural description

Schein suggests that the following elements can be used to describe culture:

- Observed behavior: language, customs, traditions
- Group norms: standards and values
- Espoused values: published, publicly announced values
- Formal philosophy: mission
- Rules of the game: rules applying to everyone in the organization
- Climate: the way in which the group members interact

- Embedded skills
- Habits of thinking, acting, paradigms: shared knowledge about how to appropriately socialize
- Metaphors or symbols

Knowledge culture can be described by answering the following questions which are based on the above elements:

- **Observed behavior**: Which tradition or which traditions exist in the company regarding the handling of knowledge? How do people communicate when they require knowledge from others or want to pass on knowledge? Are there specific idioms or terms?
- **Group norms**: Are there formal or informal rules, which promote transferring knowledge or using others' knowledge?
- **Espoused values**: How is knowledge positioned within the official value system, that is written down in guiding principles or examples? Do explicit statements exist?
- **Formal philosophy**: Is knowledge explicitly mentioned in the vision/mission statements?
- **Rules of the Game**: Is the treatment of knowledge formulated in the official company rules? What unofficial rules have developed?
- **Climate**: How do team members interact with one another while they are developing knowledge?
- **Embedded skills**: Which abilities do the employees have to acquire knowledge? Are they aware of the sources of knowledge? Which abilities do they have to document knowledge? How well can they convert implicit knowledge into explicit knowledge?
- **Habits of thinking, acting, paradigms**: What are their implicit rules about appropriate behavior?
- **Metaphors or symbols**: Are there metaphors or symbols related to knowledge? Which stories are told about dealing with knowledge?

The answers to these questions, represent a first description of the contents of a knowledge culture. One reaches a further level of description, if the respective characteristics are differentiated according to breadth and depth. Breadth refers to the number of employees whose behavior can be influenced by the culture. Depth refers to how firmly the coworkers are convinced of the culture.

Therefore one can speak of a strongly or weakly expressed corporate culture. Strongly pronounced corporate cultures are characterized by the fact that their elements shape the employees' behavior, that a large number of employees have

accepted the culture and that it is firmly embodied in the value system of the employees.

Knowledge culture is but one component of the corporate culture, focused specifically on knowledge is managed. Subcultures exist alongside the corporate culture, e.g. management culture, service culture etc. Knowledge culture has a two-way relationship with each subculture. On the one hand these cultures support handling knowledge and on the other side support the knowledge culture of the subcultures. In this way, an appropriate management culture can promote the exchange of knowledge, by making openness and transparency central values. On the other hand a good knowledge culture can support the service culture, by promoting the exchange of experience and knowledge among the service employees. The following picture shows the relationship among the three description levels described here.

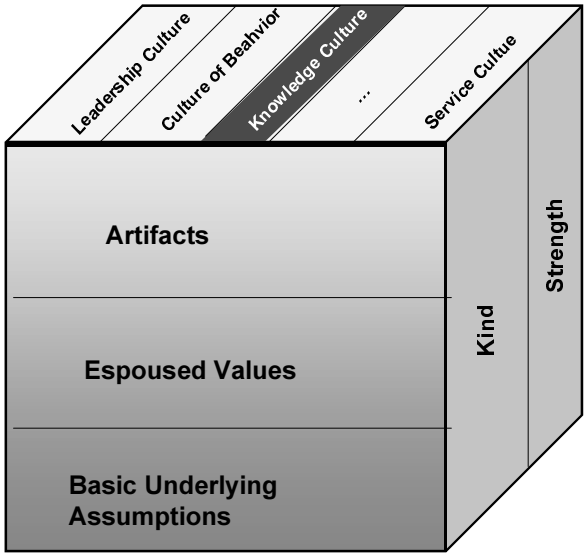

Figure 2: Three different way to describe culture

Often it appears that the description of the company's knowledge culture is not consistent, but in itself contains contradictions. Some of the most common contradictions are:

- We train our employees well, but do not let them use their knowledge
- We learn the most by working on projects, but do not pass on the experience we gained
- We have an expert for every question, but very few people know how to find the expert

- We document everything thoroughly, but we cannot access our stores of knowledge
- We hire only the brightest people, but lose them after three years to the competition
- We know everything about our competitors, but very little about ourselves
- We demand that employees share their knowledge, but keep secrets to ourselves
- We cooperate in order to learn from others, but do not know what our goals are. [7]

2.3 Paradigm Change

These contradictions reveal that in many companies a paradigm change in knowledge management is taking place. New models of knowledge management that spring from the strategic requirements are needed. However, even when a new model is introduced, the previous model remains alive in the minds of the employees. The high efficiency of hierarchical organizations existed in their specialization, both in the kind of the tasks accomplished, as well as in the specialization regarding design, production and controlling of production. Knowledge exchange was, if at all, only necessary within a level of specialization. Knowledge acquisition was primarily an individual matter. Collective knowledge acquisition was rather the exception. Specialization determined the value of the work. The cultural framework was structured in such a way that it promoted individual knowledge acquisition.

At the end of the 20th Century however a fundamental paradigm change in industrial production took place. Hellmut Willke examined this change in several case studies which are documented in his book, „Systemisches Wissensmanagement“ ("Systemic Knowledge Management"). He describes the change as follows: "To the degree that knowledge-based organizations manufactured superior, intelligent products and services, the usefulness of industrial work organized according to Taylor’s philosophy declined. The scientific work model was replaced by the knowledge work model, in which the work content and organizational structure of work are defined. While the classic professions made a contribution as individuals or in small teams, the new knowledge work is done in large, complex, geographically-dispersed and, in extreme cases, global organizations.[8] In parallel with the change in organizing work, comes a need for changing the way knowledge is managed.

When we talk about knowledge culture today, we usually mean a change of the knowledge culture toward collective knowledge acquisition. Signs of such a culture are whether:

- knowledge is freely shared or carefully guarded,
- knowledge is made accessible,
- knowledge is passed down throughout the organizational levels,
- the employees are allowed to acquire knowledge,
- knowledge is important within the company,
- making an effort to increase knowledge is valued,
- employees have a positive attitude toward learning,

[7] [PRR97] S. 349
[8] [Wi98] S. 3

- the organization tolerates errors and is open to new thoughts, ideas and opinions,
- communication is encouraged and employees are rewarded if they pass on their knowledge and continually strive to acquire new knowledge.

3 Summary of Knowledge Culture and Conclusions

At the WM 03 we conducted a survey of the participants regarding the current status of the knowledge culture. The results are not representative for an overall view, however they show the present trend. The corporate culture values related to knowledge orientation are shown in Figure 3:

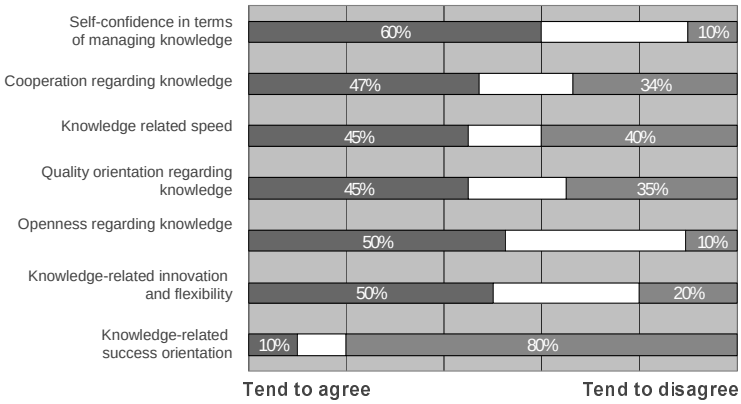

Figure 3: Knowledge oriented culture

What is remarkable about the knowledge-oriented values is that only a few are pronounced. In particular, one notices a difference in the success orientation of the company and success orientation in the knowledge culture. Here it was asked whether knowledge management activities in the organization are rewarded. Here there are only 10 % positive answers as opposed to the 100 % positive answers regarding corporate culture. The values innovation, flexibility, openness of communication and the sense of responsibility are pronounced in managing knowledge. This lines up with the values in the company's culture profile. During knowledge-related cooperation, speed and quality orientation are noticeable in that they are pronounced both in the positive, as well as in the negative ranges of the scale. Here probably two culture elements are effective.

Figure 4 shows to what extent the culture value appears in visible written word, stories, rituals and language.

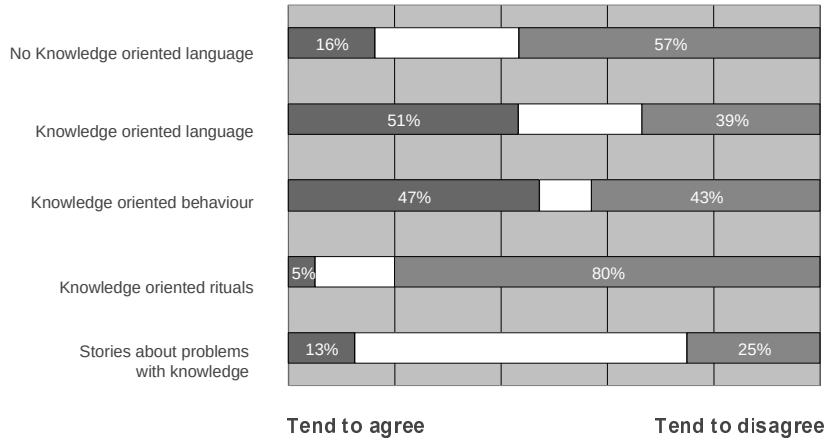

Figure 4: Artifacts of Knowledge Culture

In organizations it is rather uncommon to tell stories about knowledge. This results in few positive as well as negative answers regarding the question about stories related to managing knowledge. The clearest indication of how well knowledge management is anchored in the culture is the language. The predominant positive answers related to positive language characteristics and the predominant negative answers related to the negative elements of speech make this clear. There is a balance between knowledge-oriented behaviors and behaviors that do not promote knowledge. The knowledge culture is most difficult to discern in rituals. The behaviors that do not promote knowledge still prevail. Rituals regarding knowledge management are rather the exception.

Figure 5 below shows the determinates for knowledge culture.

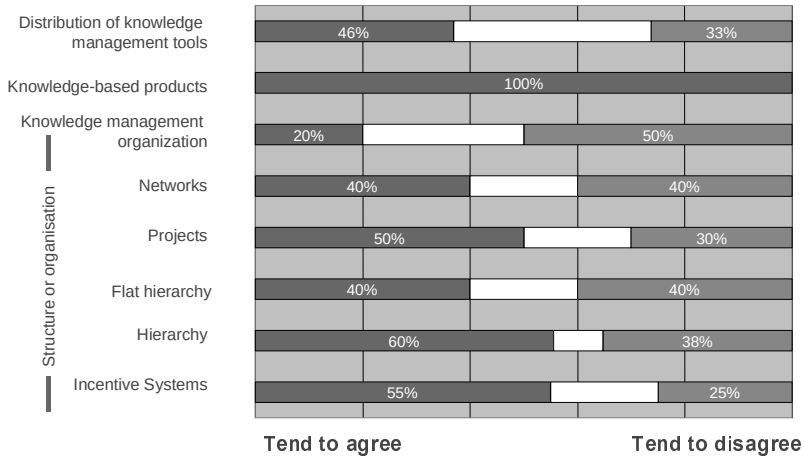

Figure 5: Hard Facts of Knowledge Management

All organizations make knowledge-based products. On the other hand the spreading of knowledge management tools is relatively limited. Here there are only 46 % positive responses. The explicit implementation of a knowledge organization in the form of a free-standing organizational unit is rather the exception. The negative responses are clearly pronounced here. However, many organizations have incentive systems for knowledge management. Several responses were possible regarding the organization structure. The organizational units have rather combinations of organizations. Hierarchical organizations have an overlay of projects or networks. A hierarchical organization structure is the most common form. Here only one quarter of the survey participants indicated that they work explicitly in a non-hierarchical organization.

Altogether the positive responses regarding knowledge culture were somewhat over 50%. This means that the topic of knowledge culture has not yet become a dominating culture element in the company. The prevailing attitude toward knowledge-oriented and non-knowledge oriented elements is rather ambivalent. The results of the survey point out the fact that the establishment of knowledge culture has begun and its initial effects can be seen. However there still exists an overlap or an ambivalence which is characterized by non-knowledge-oriented culture elements.

For the change of knowledge culture it is important to know which elements of culture supports knowledge management and which do not. Based on the results of a survey there must be defined measures that support the positive elements and establish platforms for changing the more negative elements. There are many methods an tools that can be use for a cultural change process like a dialog about knowledge culture in interactive meetings, real time strategy change conferences or appreciative inquiries. They can be adapted for the specific need for a change of knowledge

culture. Consulting methods like those of the Fraunhofer Institute[9] or Arthur D. Little[10] are examples for such an approach. On the other hand there must be implemented structures, like tools for knowledge management, communities of practise and incentive systems which make it nccecary to have an other knowledge culture in the every day live.

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[9] [Fi]
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