

## **The Analysis of Organizational Culture and Structure as a Basis for the Implementation of Knowledge Management**

*Erich Hartlieb, Marjan Leber,  
Josef Tuppinger, and Reinhard Willfort*  
ISN – Innovation Service Network  
Austria

In the commercial world of today Knowledge Management and Organizational Learning are supposed to be indispensable prerequisites for the competitive ability of companies. Organizational learning can be considered analogous to individual learning. It is based on individual learning processes and means a change of organizational structure and/or culture with the aim of surviving in the dynamic environment. Organizational learning should be systematic and should include all the people concerned. Managers, in particular, have the potential to change an organization and therefore they should act in an exemplary way.

### INTRODUCTION

Today's business is characterized by rapid technological developments, intensified terms of competition and self-changing values. Organisations can only remain competitive in this dynamic field if they change. Therefore, a systematic interaction of both organisational learning and knowledge – known as knowledge management – has become an important matter for organisations. It seems that the existing structures and prevailing organisation cultures, in particular, have an essential influence on the success of these efforts. This article shows that organisational learning can be undertaken in a deliberate way and that people play a leading part in this process. A case study illustrates and improves the theoretical comments and gives a lot of tips for real use.

### FROM INDIVIDUAL TO ORGANISATIONAL LEARNING

Knowledge psychology distinguishes between declarative and procedural knowledge. Whilst declarative knowledge refers to facts (issues, processes etc.) and objects (persons, things etc.), procedural knowledge refers to the way cognitive processes and actions are performed. Declarative knowledge is also described as knowledge of something (knowing) or

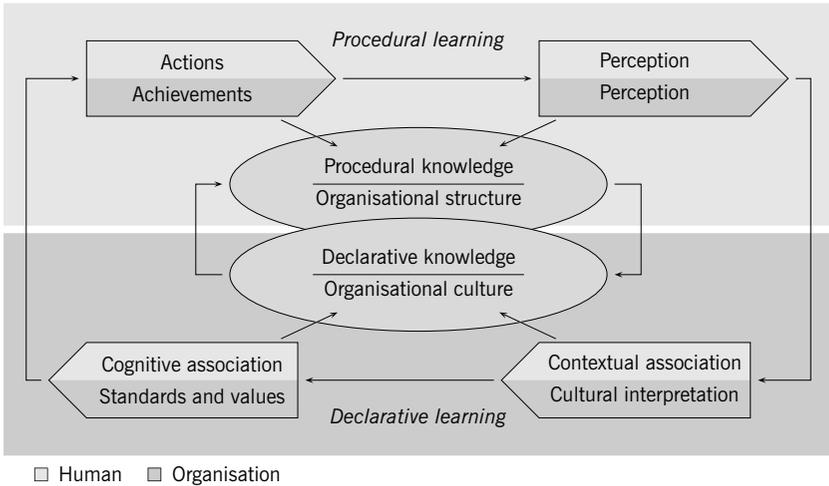


FIGURE 1 Human/organisational learning model

‘know-what’. Procedural knowledge is also described as process knowledge or ‘know-how’.

Procedural learning involves the perception of stimuli and the initiation of appropriate behaviour (action). The analysis of prior experiences (contextual placement) and the development of behavioural guidelines (cognitive association) are known as declarative learning. However, this dichotomy should not be misinterpreted. Both levels of learning (and types of knowledge) are in fact activated by the learning process and interact with it, even if one of them assumes a more prominent role.

A human learning model (fig. 1) shows the learning process as a four-phase cycle, with different types of knowledge created in each phase. This new knowledge is the starting point and an object of the next learning activity.

A comparison of the analogies between humans and organisations shows organisational structure as a procedural element and organisational culture as a declarative element in organisations. These analogies are based on the following assumptions:

- People use procedural knowledge (know-how) to interact with their environment through action. In comparison, organisations use appropriate structures (procedures, processes) to generate activities and interact with their environment.
- Declarative knowledge (know-what) is the starting point for proce-

dural knowledge and any subsequent actions taken by people. Correspondingly, culture can be described as the declarative knowledge of an organisation, since it provides the meaning and guidelines for behaviour and thus forms the basis of all actions.

Consequently, the organisational and the human learning processes follow comparable phases, whereby any changes in the organisational structure can be seen as procedural learning and changes in culture as declarative learning. Although it is possible that one particular learning process will assume a more prominent role, in practice they will always interact.

Individual learning processes form the starting point for organisational learning. It is individual learning that provides the impetus for organisational change. The implementation of such a change also requires individual learning processes, which can involve all members of the organisation or smaller groups, depending on the scope of the actual change.

#### ORGANISATIONAL LEARNING: PROCEDURE

A general, three-step (analysis, design and development) sequential model can be applied to organisational learning. Once the impetus for organisational learning has been given, i. e. a need for organisational change recognised in reactions from the environment, the analysis phase can begin. In this phase, goals should be defined and the actual situation (structure and/or culture) should be established and processed.

Any research methods used will depend strongly on the resources available and should consider content, human resources and economic factors. Questionnaires are a quick and easy way of establishing a general picture of the current climate, whilst semi-standardised interviews take a more detailed look at the interviewee's individual situation. Observation methods are used primarily to support and/or verify other research methods.

The next stage in the design process is to define a desired target situation, compare it with the actual situation and derive appropriate interventions from the results of this comparison. An appropriate strategy should now be defined to address these shortfalls. This will depend on the degree of deviation between the target and the actual situations and the urgency of any identified issues.

The process then moves into the development stage, where any proposed interventions are implemented, i. e. suitable measures are devel-

oped, introduced and evaluated to ascertain how effective they have been in reaching the goals set.

The following dimensions and their characteristics can be used as the basis for the analysis and design of the organisational structure:

- Specialisation (specialised–generalised)
- Coordination (impersonal–personal)
- Configuration (hierarchical–heterarchical)
- Delegation of decisions (centralised–decentralised)
- Formalisation (bureaucratic–unbureaucratic)

According to Edgar Schein the analysis and design of the organisational culture can be based on elements of corporate culture. These include views on and attitudes to:

- Environment (threat–opportunity)
- Reality (facts–creativity)
- Human nature (independent–dependent)
- Human action (control–trust)
- Interpersonal relationships (competition–cooperation)

Graphical representations are an excellent way of presenting the results of the situational analysis and/or a target/actual comparison since managers often think and act ‘in numbers’ and show greater interest in dealing with any shortfalls presented to them in this form. Due to their communication capabilities and greater knowledge, managers were given the role of opinion leaders and upholders of the organisational culture, which is essential for an effective and efficient change in the organization.

#### CASE STUDY: AUTOMOTIVE INDUSTRY

This case study describes the application of the model in an automotive enterprise. The observed organization has been focusing on knowledge management for years. A project team was established to institutionalise this topic in the organisation. The team started some small pilot projects. Their first experiences showed that the members of the organization were not very willing to cooperate. This condition could be due to several points:

- low acceptance of ‘foreign’ knowledge (the so-called ‘not invented here’ syndrome),

- lack of consciousness of the importance of the member's own knowledge for the organisation,
- little identification with work and lack of motivation for the realization of ideas,
- the necessary technical facilities (IT technology) were not available and/or used incorrectly.

As in many knowledge management projects, some symptoms could be traced back to organisational culture. To ensure that future efforts in the area of knowledge management were more effective, the team first decided to analyse the culture and introduce appropriate measures for a knowledge management-oriented culture. The tasks defined for this project were therefore:

- To describe and evaluate the organisational culture
- To point out problems and weaknesses
- To derive and conceive measures

The superordinated goal of this project was to increase the acceptance of knowledge management and intensify the willingness to cooperate with this area. The approach used in this project was similar to the general procedural model.

### *Culture Analysis*

The partial goals of the analysis were to describe and prepare the current culture using 'justifiable' resources.

The following methods were used to describe the current culture:

- Written questioning – questionnaire
- Verbal questioning – interview
- Participation observation

The description of the current culture was made according to the model based on basic underlying assumptions. The questionnaire was used because of its advantages (little time required and low costs) and because the team wanted to get a general impression of the mood in the company as quickly as possible. The questionnaires were distributed personally by the heads of the departments, and a very good return ratio from approximately 40% was reached.

The verbal questioning took place in the form of half-standardised interviews with 7 executives and 15 employees (heads of departments

TABLE 1 Interview guidelines for culture survey (excerpt)

---

*Environment*

- Does the organisation dominate its environment?
- Is the environment considered a challenge for xy?
- Does everyone know the organisation's goals?
- Are the goals clear, and do they match the organisational environment?

---

*Reality (truth, time and space)*

- Are tried and tested solutions preferred to new (creative) ones?
- Will consideration be given to external solutions or only to internal possibilities?
- What is the general approach to time? Is the focus more on the past, the present or the future?
- Is there enough time for asking/answering questions?
- Is there sufficient opportunity/space for informal knowledge transfer?

---

*Human nature*

- Who makes decisions? How are decisions made? Are people allowed to take decisions?
- How is work/performance checked? (Self-assessment, trust, milestones etc.)
- How does the organisation approach responsibility? Who has responsibility? Is this consistent throughout the organisation?

---

*Human action*

- Is focus placed more on completing tasks (routine processes) or on active learning
- Does the organisation tolerate mistakes and how does it react to them?
- The relationship between work and pleasure: Totally separate or a way of life?

---

*Interpersonal relationships*

- Attitude to knowledge sharing: 'knowledge is power' vs. cooperative knowledge exchange?
- What is the relationship among employees? How do they communicate with each other?
- How does interdepartmental communication work?

---

and groups as well as other opinion leaders). With the use of half-standardised interviews the team pursued two goals. On the one hand the team wanted to obtain comparative answers, on the other hand it asked specific questions about the individual situation of the interviewee to get more details. Because of their special position within the organisational culture, the executives were asked first. The team wanted to be informed about the project and refer to it in time. Table 1 shows an excerpt from the used interview.

The participation observation served particularly for the support and/or verification of the other inquiry methods. Members of the project team participated in meetings and discussions involving executives and other leading staff. Moreover, the project team spent a lot of time in the

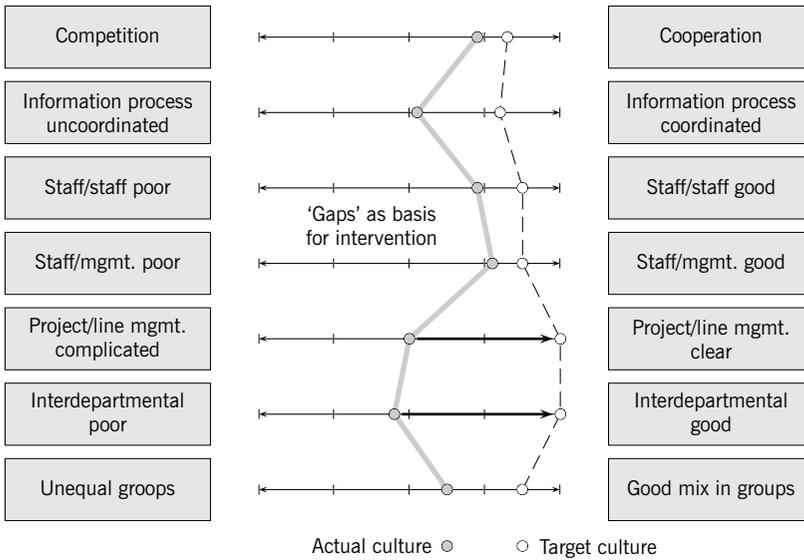


FIGURE 2 Example of target/actual culture for 'interpersonal relationships'

organisation during the project and so gained a lot of experience with the organisation culture.

### Culture Design

The definition of the target culture and the derivation of measures took place in workshops with executives and other opinion leaders. The following section shows the comparison of nominal and actual culture and the derivation of interventions given on the basis of the dimension 'interpersonal relationships' (fig. 2).

By identifying the largest gaps, we could derive measures for all dimensions. As the individual dimensions and/or basic assumptions represent a coherent system, the measures always have an effect on other variables. The extent of this effect could be evaluated in a simple way to determine the most effective measures. Table 2 shows an overview of the improvement suggestions and their effect on the individual dimensions.

A detailed representation of all improvement suggestions cannot be given here and so only some interesting examples are presented.

Info corners should be established as a central meeting place for the employees. Apart from general news and facts about the organisation, the place could also be used as a central location for idea management. This means that suggestions could be delivered and inspected there

TABLE 2 Overview and scoring of measures

| Suggestions and individual dimensions |                                                                                    | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---------------------------------------|------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| <i>Environment</i>                    | Methods to communicate organisation's goals (e. g. BSC, autonomous working groups) | 3   | 2   | 1   | 1   | 3   | 2   | 2   | 14  |
| <i>Time</i>                           | Time account                                                                       | 0   | 1   | 2   | 1   | 0   | 1   | 2   | 7   |
|                                       | Presentations of projects 'knowledge-transfer days'                                | 2   | 3   | 2   | 2   | 1   | 2   | 3   | 15  |
| <i>Space</i>                          | Social corners                                                                     | 1   | 1   | 1   | 3   | 0   | 1   | 2   | 9   |
|                                       | Info corners                                                                       | 2   | 2   | 2   | 4   | 1   | 2   | 3   | 16  |
|                                       | Cafeteria                                                                          | 1   | 1   | 1   | 2   | 0   | 3   | 3   | 11  |
| <i>Human nature</i>                   | Incentive systems                                                                  | 1   | 0   | 2   | 1   | 3   | 3   | 2   | 12  |
| <i>Human action</i>                   | Office outings, company events                                                     | 1   | 2   | 2   | 2   | 2   | 2   | 2   | 13  |
| <i>Interpersonal relationships</i>    | Daily intranet news                                                                | 1   | 1   | 1   | 1   | 0   | 1   | 2   | 7   |
|                                       | Discussion platforms                                                               | 2   | 2   | 2   | 2   | 2   | 1   | 3   | 14  |
|                                       | Incentive tours                                                                    | 0   | 2   | 1   | 2   | 1   | 2   | 2   | 10  |
|                                       | Project platforms                                                                  | 2   | 2   | 3   | 1   | 2   | 1   | 2   | 13  |
|                                       | Coaching for young fellows                                                         | 2   | 2   | 1   | 2   | 3   | 2   | 2   | 14  |
|                                       | T-shaped manager                                                                   | 2   | 3   | 2   | 2   | 2   | 1   | 2   | 14  |

Note: Column heads are as follows: (1) Environment; (2) truth; (3) time; (4) space; (5) human nature; (6) human action; (7) interpersonal relationships; (8) total.

0 – small effect, 4 – large effect.

and/or the best ideas presented to encourage the creativity of the employees. Altogether these info corners represent a formal and informal communication centre which can be established and operated with little expense. Other spatial measures (social corners within the open-plan offices, snack corners for non-smokers, cafeterias) should foster informal communication.

A common communication basis for the heads of the departments can be guaranteed by implementing a kind of incentive tour for executives (e. g. one weekend per year) which would focus on the maintenance and development of social and interpersonal relationships. This could be carried top down and department-spreading communication would improve.

A further contribution would be the installation of regular discussion platforms (e. g. monthly) between groups and/or departments. These should not only be established for units which co-operate closely but also for others which cooperate less often. The goal of these moderated

discussions is to eliminate interface problems and create a structure of mutual understanding.

Within competent departments there should be time for the presentation of project experiences. These presentations should not focus on the project itself, but on positive and negative experiences made during the course of the project (e. g. presentation of the three largest errors and the three best ideas).

The execution of knowledge transfer days during which current and final projects from all fields are presented has several interesting aspects. On the one hand, the different units are informed about which projects are running in other fields, on the other hand, the presented contents can lead to new ideas and/or new knowledge in another context.

A coaching for young employees increases their ability to act quickly. This requires the training of coaches. These young employees constitute the future generation of executives. This can lead to the development of the so-called 'human portals' (employees who have a very close-meshed relations net in the organisation and possess a wealth of experience) or T-shaped managers (employees who give assistance crosswise over special fields whilst continuing to work in their own area at the same time).

Altogether some interesting measures were suggested which were put into action in the development step.

### *Culture Development*

After a selection of the most promising measures, the competencies for the execution of individual measures were defined and the strategy of change (evolutionary vs. revolutionary) was fixed. In the last step – culture development – the external project workers gradually left so the change of culture is now carried fully and completely by employees and the leading staff.

An effective examination of the achievement of objectives would require a second evaluation of the organisational culture and/or individual dimensions to confirm the success of the interventions. In order to secure the results of this cultural learning, it needs to be carried out continuously and not regarded as a unique act. In this context we speak of a culture-conscious management meaning that the values and standards of an organisation must be maintained and developed consciously.

### REFERENCES

- Schein, E. H. 1997. *Organizational culture and leadership*. 2nd ed. San Francisco: Jossey-Bass.