# 12 Strategy and Environment

This chapter will first analyze several variables describing the organizational and business environment in which the KM initiatives are embedded (section 12.1). Then, the state of strategic considerations within KM will be studied with respect to KM goals that the initiatives target, as well as estimations to what extent these goals are actually achieved and to what extent these goals are documented and systematically evaluated (section 12.2).

## 12.1 Organizational and business environment

The organizational and business environment of the organization was included in the questionnaire in order to provide control variables for some of the analysis. Several variables were used in order to assess the size of the organization (section 12.1.1) and the organizational structure (section 12.1.2).

### 12.1.1 Size of organizations

Size of the organizations was measured in terms of number of employees and turnover. The average size of the responding organizations was 13,647 employees, the median was at 4,450 employees with a maximum of 220,000 and a minimum of 25 employees (n=72 respondents). Table C-17 gives an overview of the distribution of organizations according to the *number of employees*. 35 respondents (= 48.6%) reported 5,000 or more employees and are considered very large organizations. 15 organizations (= 20.8%) reported fewer than 500 employees, 3 organizations (= 4.2%) fewer than 100 employees. Respondents were asked to indicate the number of employees of the business unit for which the KM initiative was responsible.

x = number of employees	frequency	percent
x < 100	3	4.17
$100 \le x < 500$	12	16.67
$500 \le x < 1,000$	5	6.94
$1,000 \le x < 5,000$	17	23.61
$5,000 \le x < 10,000$	18	25.00
$10,000 \le x < 50,000$	13	18.06
$x \ge 50,000$	4	5.56
total	72	100.00

**TABLE C-17.** Size of the organizations in terms of number of employees

The "business unit" had to be either a legally independent organizational unit or the whole organization, not just a department or division of an organization. Thus, there were several cases where the business unit for which the number of employees was given, was only a part of a large multinational organization. In two cases, the small number of employees can be attributed to the fact that the organization was a management holding. In two more cases, the organization was an association or union (e.g., a purchasing society or association).

The average size of the responding organizations in terms of *turnover* was 6.1 billion German marks (n=48, without financial services and insurance companies) with a maximum of 50 billion German marks and a minimum of 120 million German marks (median = 3.2 billion German marks). Most organizations had a turnover between 1.5 and 5 million German marks (see Table C-18). Three organizations reported a turnover of less than 1 billion German marks. This can be explained in the same way as in the case of respondents indicating a low number of employees (see above).

x = turnover in million German marks (DM)	frequency	percent
x < 1,000	3	6.25
$1,000 \le x < 2,500$	17	35.42
$2,500 \le x < 5,000$	10	20.83
$5,000 \le x < 7,500$	7	14.58
$7,500 \le x < 10,000$	6	12.50
x ≥ 10,000	5	10.42
total	48	100.00

**TABLE C-18.** Size of the organizations in terms of turnover

The average *number of IT employees* was 285 (n=63) with a maximum of 2,500 and a minimum of 1 employee. 10 organizations (= 15.9%) reported fewer than 10 IT employees, 6 organizations (= 9.5%) reported more than 1,000 IT employees.

The number of employees, the annual turnover and the number of IT employees are highly correlated  $^{22}$ .

Responding organizations belonging to the service or trade sector (mean = 4,204 employees) were significantly smaller in terms of number of employees than industrial organizations (mean = 22,581 employees, Spearman's rho: -0.368, significance: 0.001, n=72). However, the service organizations had on average more IT employees (mean = 317 IT employees) than the industrial organizations (mean = 251 IT employees), although the difference was insignificant. There was also no significant difference between service and industrial organizations in terms of turnover.

<sup>22.</sup> Number of employees – number of IT employees: Spearman's rho: 0.696, significance: 0.000001, n=62, number of employees – turnover: Spearman's rho: 0.686, significance: 0.000001, n=48 and number of IT employees – turnover: Spearman's rho: 0.595, significance: 0.000051, n=40.

## 12.1.2 Organizational structure

Table C-19 shows the total *number of hierarchical levels* in the organizations questioned. Of the 19 organizations responding to this question 12 had three or four hierarchical levels (63.2%) which shows that most of the organizations with a systematic KM initiative in the sample can be characterized as having a rather "flat" organizational structure. Not surprisingly, the number of hierarchical levels is positively correlated with the number of employees (Spearman's rho: 0.460, significance: 0.047, n=19).

number of hierarchical levels	frequency	percent
3	4	21.05
4	8	42.11
5	3	15.79
6	2	10.53
7	1	5.26
8	1	5.26
valid total	19	100.00

**TABLE C-19.** Number of hierarchical levels in the organization

Table C-20 shows the *geographical (de-) centralization* of the responding organizations. Almost 9 in 10 organizations had multiple sites and more than half of the organizations had international operations (58.9%). Thus, the responding organizations were quite decentralized. This more complex organizational structure than in the case of just one site requires additional efforts in terms of coordination between the various sites. Also, in the international case coordination is even more of a challenge due to language barriers and different national cultures<sup>23</sup>.

TABLE C-20.	Geographical (de-) centralization of the organization	zations

geographical (de-) centralization	frequency	percent
one location	9	12.33
multiple locations in German speaking countries	21	28.77
multiple locations, internationally	43	58.90
total	73	100.00

<sup>23.</sup> See Gupta/Govindarajan 2000 and Subramaniam/Venkatraman 2001 for empirical studies analyzing the substantial requirements for knowledge to be effectively transferred between different national locations of multinational companies.

#### 12.1.3 Résumé

Apart from traditional variables describing the organizational or business environment, such as size and industry sector, two more variables were included which hypothetically had an influence on KM initiatives. The number of hierarchical levels is a measure of structure of the organizations, especially when related to the number of employees. Geographical decentralization supposedly influences the complexity of the KM initiative as well as the heterogeneity of the corresponding organizational culture that has to take into account different national cultures and language barriers.

The sample mainly consisted of large to very large organizations of all industry sectors. The median organization had 4,450 employees with most organizations distributed in a range between 1,000 and 10,000 employees. The median turnover was 3.15 billion German marks. Most organizations (not including the sectors financial services and insurance) reported a range between 1.5 and 7.5 billion German marks. However, as some of the organizations had special organizational forms, such as management holdings or purchasing societies which accounted for a high turnover, but a low number of employees, these values varied considerably. Most of the organizations had between three and five levels of hierarchy and multiple locations in several countries, to a large part internationally, i.e., not restricted to the German-speaking countries Germany, Austria and Switzerland.

In about a third of the organizations, knowledge management was well established showing a significant increase over previous studies. Most of these organizations had started their KM initiatives within the last two years before this study.

Thus, in general the organizations in the sample were of considerable size suggesting that a systematic handling of knowledge was relevant and potentially generated substantial benefits to this set of organizations. This is supported by the finding that the share of organizations who had already implemented such an approach was on the rise

## 12.2 Strategy

As already discussed before, strategy is an important, yet underrepresented area in knowledge management<sup>24</sup>. This is all the more true for the state of practice of strategic considerations in KM initiatives. The interviews showed that many organizations had no explicit knowledge management strategy and the initiative lacked integration with the business strategy. In the following, section 12.2.1 will discuss what knowledge management goals were targeted in the organizations' KM efforts. Section 12.2.2 will show to what extent respondents thought they had achieved these goals. Finally, section 12.2.3 will study how organizations deal with KM goals, if and how they document them and whether these goals are systematically evaluated or not.

<sup>24.</sup> See chapter 5 - "Strategy" on page 93.

### 12.2.1 Targeted goals

The list of knowledge management goals which was used in the empirical study was derived from case studies documented in the literature (e.g., Davenport et al. 1998) as well as empirical data found in studies on knowledge management that were available at the time when this study was designed<sup>25</sup>. The respondents were asked to indicate in the questionnaire whether their organization aims "strongly", "partly" or "not at all" at a certain goal.

Figure C-5 shows which goals the responding organizations aimed at with their KM activities<sup>26</sup>. Each bar represents the number of organizations that aimed strongly, partly or not at all at a KM goal. In the figure, the goals are ordered according to the number of organizations aiming strongly at a goal and if two or more goals received the same number of respondents then according to the number of respondents aiming partly at the respective goals.

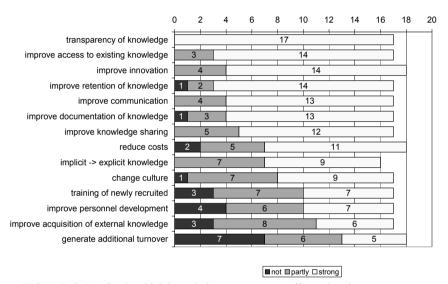


FIGURE C-5. Goals which knowledge management efforts aimed at

All respondents indicated that they wanted to *improve the transparency of knowledge* with their KM efforts. Thus, identification of knowledge sources – a prerequisite for many other goals – was a goal in every activity surveyed. This is not surprising as in the ILOI study half of the organizations estimated that only 20-40% of their knowledge was actually used. The other half of the organizations indicated a higher share of knowledge actually used at 60-80%. According to 82% of

APQC 1996, Bullinger et al. 1997, 18f and 32, ILOI 1997, 15, Heisig/Vorbeck 1998, 7, Earl/Scott 1999, 31.

<sup>26.</sup> Original question: "To what extent does your organization aim at the following knowledge management goals"

the organizations, unused knowledge potentials account for a "medium" to "high" loss of benefits which could not be quantified by the respondents (ILOI 1997, 13). In the 1998 KPMG study, 47% of the organizations with a KM initiative said they were benchmarking or auditing the current situation in their organization and another 23% were planning to do so (KPMG 1998, 13). Jäger/Straub found similar results with most of the HR managers thinking that transparency is the most important goal of knowledge management (Jäger/Straub 1999, 21).

On the other end of the list of KM goals, *generating additional turnover* with knowledge and the improvement of the process of acquiring knowledge from outside the organization were more specific goals that most of the responding organizations only partly aimed at or not at all. Thus, in most of the organizations so far knowledge management is an internal activity that is focused exclusively on the organization-internal knowledge base. The support of traditional human resource activities like personnel development or training of newly recruited employees is not highly regarded as an important goal in many companies.

With the exception of *improving innovation* which can be seen as a very general KM goal, those goals that were focused strongly by most if not all organizations were

- *improve the handling of existing knowledge* in documents or in people's heads: improve transparency (17 organizations indicated to strongly aim at that goal), improve access (14), improve documentation (13) and retention of knowledge (14),
- *improve the sharing of knowledge*: improve knowledge sharing (12) and improve communication (13).

16 out of 17 organizations indicated that they wanted to *change their organizational culture* with their knowledge management efforts partly (7) or even strongly (9 cases). Employees and managers concerned with KM efforts (e.g., knowledge managers, project managers, developers of systems) usually are aware of the fact that these activities influence organizational culture. However, the changing of culture (supposedly primarily to improve the willingness of employees to share knowledge and to help each other) seemed to be a serious goal in more than half of the organizations answering this question. This result is consistent with a share of 57.7% of respondents in the Fraunhofer Stuttgart study which thought that an improvement of the organizational culture was the single most important potential of a successful KM, even more important than other highly ranked goals and instruments (mixed in that study), such as transparency of knowledge demands, organized opportunities for knowledge exchange or an improvement of the IT infrastructure (Bullinger et al. 1997, 32).

12 out of 18 organizations (=66.7%) answering this question aimed at eight or more KM goals strongly at the same time. These KM goals covered both, the codification strategy<sup>27</sup> and the personalization strategy<sup>28</sup> at the same time. Thus, it seems that KM initiatives are currently very broadly and vaguely defined projects. Many organizations try to do "everything at the same time". Hypothesis 7: 'The

majority of organizations strongly aim at more than half of the KM goals (>7 goals) at the same time' therefore was supported.

Moreover, only 49% of the organizations surveyed by Fraunhofer Berlin thought that the definition of KM goals was either important or very important (Heisig/Vorbeck 1998, 7). One might assume that the other half of the organizations rather "plunged" into whatever KM activities promised "success" or "quick wins" in the modern management language.

Comparing these results with the results of the ILOI study reveals a shift in the focus of KM efforts. In the ILOI study, organizations primarily aimed at an organization-wide explication of individual knowledge, making it independent from individuals (ILOI 1997, 15). This explicit knowledge then should be made accessible for as many employees as possible.

In the study presented here, KM efforts seemed to be no longer focused exclusively on codifying existing knowledge. Organizations tried to improve the sharing of implicit knowledge via communication and cooperation of knowledge seekers and knowledge providers (experts) as much as they try to elicit knowledge elements out of employees. Likewise in Jäger/Straub's study of HR managers, the support of the *internal transfer of knowledge* was the second highest item only surpassed by a better use of existing knowledge resources (Jäger/Straub 1999, 21). Moreover, in the 2001 KPMG study *knowledge sharing* was cited as the single most important goal of KM with 91% of the respondents targeting this goal (KPMG 2001, 15). The rest of the KM goals pretty much repeats the picture painted in the study presented here with the exception that *improving transparency* dropped in importance and is now surpassed by goals such as *access to existing knowledge* and *improve retention of knowledge*.

Similarly, in the interviews many organizations thought that a sole focus on untying knowledge from the person holding it is not a fruitful approach as it neglects the very nature of knowledge. Also, the effort necessary to explicate knowledge is huge when compared to the benefits which might be reaped from a reuse of this type of knowledge. In the interviews, it turned out that organizations selected KM efforts strictly oriented toward well-defined business goals and not an unfocused, organization-wide approach. Thus, they attempted to overcome this gap between knowledge independent of people and networks of experts jointly bringing up organizational core competencies. This approach is intended to bridge and integrate the personalization and codification side of KM into a more holistic approach<sup>29</sup>.

<sup>27.</sup> Codification was supported for example with the goals improve documentation of knowledge, acquisition of external knowledge and retention of knowledge, turn implicit into explicit knowledge; see section 5.2.3 - "Generic knowledge management strategies" on page 129 for a discussion of the two strategies; see also chapter 9 - "Summary and Critical Reflection" on page 434 for the relationships between KM goals and these two strategies.

<sup>28.</sup> Personalization was covered for example by the goals improve communication, training of newly recruited, improve knowledge sharing, improve personnel development

### 12.2.2 Achieved goals

Additionally, it was studied to what extent KM goals were already achieved with the help of a KM initiative. The organizations were asked to indicate the level of achievement of the KM goals<sup>30</sup>. Figure C-6 shows the means and standard deviations of the achievement of these goals. All those responding organizations that indicated not to aim at a particular goal were omitted from the statistics. Thus, the number of respondents is lower than in the case of targeted goals (section 12.2.1 above).

The rates of achievement were ranked on average between 3.71 and 4.63 showing a medium level of achievement. Although the differences were not substantial, it seems that companies so far were least successful in achieving a *change of organizational culture* (mean = 3.71) which is not surprising, considering that

- culture is a concept that describes the long lasting values, norms, unwritten rules and attitudes of an organization that are not subject to fast changes and
- it is difficult to measure organizational culture and even more difficult to measure or even judge changes.

Transparency of knowledge—the goal aimed at strongly by all the participating organizations—had a low value for achievement at 3.75 as well. This is all the more interesting because transparency is a prerequisite for many other knowledge related goals. Thus, it seems that the KM efforts of the responding organizations on average still have some way to go until the more advanced benefits can be harvested. This is supported by the observation that the two highest ranked goals, improve access to existing knowledge, mean = 4.63, and improve communication, mean = 4.56, were achieved easier than more advanced goals like turning implicit into explicit knowledge (4.07) or improving innovation (3.94). Measurable goals were consequently rated lower than the overall mean as well: reduce costs (4.07) and generating additional turnover (3.88).

All in all, the analysis of achieved KM goals paints a rather fragmented picture. There was no clear set of KM goals that was achieved substantially more than others. Also, due to the small amount of cases it was not possible to reduce the list of KM goals to a number of factors which could then be correlated with variables describing organizational instruments, willingness to share knowledge, KMS as well as the funding of a KM initiative. Thus, the analysis has to be restricted to business goals<sup>31</sup>.

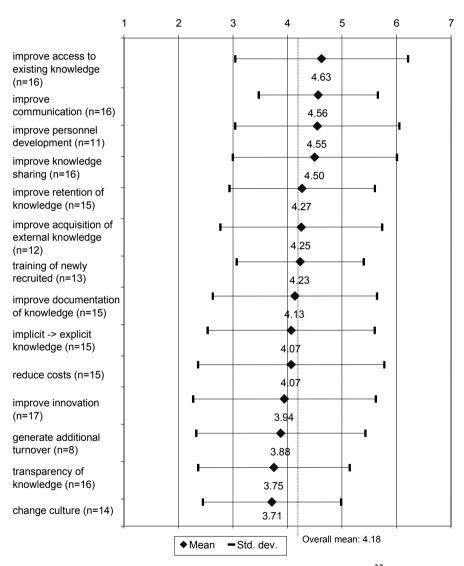
However, even though these results do not reveal specific KM goals as being more important than others, all interviewees were convinced about the positive impact of their initiatives, at least in the long run. Generally, there is broad agreement among both researchers and practitioners as to the relevance of KM for orga-

<sup>29.</sup> See chapter 9 - "Summary and Critical Reflection" on page 434, see also section 14.3 - "Functions" on page 548.

Original question: "To what extent does your organization achieve the following knowledge management goals"

<sup>31.</sup> See section 15.2.4 - "Correlations with goals" on page 575.

nizations. In the Delphi study, 85% of the respondents agreed on KM providing value for the organization and usage of corporate information with 32% indicating that KM is a new strategic imperative for staying competitive (Delphi 1997, 11). In the eyes of private organizations, KM is "here to stay" and even will gain importance. In the FH Cologne study, 90.1% of the organizations thought that KM would have increasing relevance for their organization, 9.6% thought that the importance would stay about the same and only 0.3% felt a decreasing importance of this approach (Döring-Katerkamp/Trojan 2000, 10).



**FIGURE C-6.** Goals which knowledge management efforts achieved<sup>32</sup>

Thus, the "production factor" knowledge and its systematic management also gain increasing importance. In the ILOI study, about 40% of the organizations said that knowledge accounts for a share of 80 or more percent of the value creation activity of the organization. Another 39% said that this share was between 60 and 80% and in only 21% of the organizations the share was between 20 and 40%.

In the Fraunhofer Stuttgart study, these values were substantially lower, but still 18% of the organizations said that knowledge accounts for 80 or more percent of their value creation and only 14% of the organizations believed this value was less than 20% (Bullinger et al. 1997, 16). The rest of the organizations was about equally distributed in the categories 20-40% (25% of the organizations), 40-60% (22%) and 60-80% (21%). Bullinger et al. found no significant differences in the perceptions between organizations of different industry sectors (Bullinger et al. 1997, 16). In both studies, 80% of the respondents supposed that the importance of knowledge as a factor of production would still increase (Bullinger et al. 1997, 16, ILOI 1997, 11f).

Thus, it seems that knowledge in general and a systematic management of the handling of knowledge in particular receive a high rate of attention in organizations. However, in the Fraunhofer Stuttgart study, only 20% of the respondents thought that the use of existing knowledge and only 23% thought that the transfer of knowledge between employees in their organizations were "good" or "very good". In the Delphi study, 59% of respondents ranked themselves average or worse than competition with respect to their organization's awareness of a systematic KM (Delphi 1997, 11). This gap between the perceived importance of knowledge and the low estimation of success in handling of knowledge reveals a high potential of KM concepts and instruments. In the following, the level of documentation and evaluation of KM goals will be studied which will reveal to what extent organizations manage their KM goals.

#### 12.2.3 Documentation and evaluation

The level of managing goals was measured using two questions. The first question addressed the detailing of the formulation of goals. Table C-21 shows the answers to this question. 7 out of 19 respondents (36.8%) stated that they just used general statements, vaguely defined goals like a set of slides showing general benefits. 6 respondents (31.6%) had their goals well documented which meant an in-depth exploration of knowledge management goals specific to the organization. 5 organizations (26.3%) had measurable variables defined which could be used to evaluate the success of knowledge management projects. About a third of the organizations fell into each of the categories which might be described as "vaguely defined goals", "well defined goals" and "advanced goal management" respectively. Thus, all in all 57.9% of the organizations had their KM goals well documented or precisely defined.

<sup>32.</sup> Legend: 1=not achieved, 2=low, 3=rather low, 4=medium, 5=rather high, 6=high, 7=very high. The number of respondents is shown in parenthesis.

form of documentation	frequency	percent
general statements/declaration of intent	7	36.84
well documented and described	6	31.58
precisely defined (including control variables)	5	26.32
do not know	1	5.26
total	19	100.00

TABLE C-21. Form of documentation of knowledge management goals

This result compares to a share of 33% of those respondents with a KM initiative in the KPMG UK study who had defined a KM strategy and an additional 30% of organizations which were planning to create one (KPMG 1998, 13). In the KPMG Germany study 32% of the respondents said that they had a KM strategy in place (KPMG 2001, 11). However, as there were no questions detailing this general statement and considering the statements made by those interviewees in the study presented here who actually had a KM strategy, the level of detail of this "strategy" supposedly was mostly low and certainly not precisely defined. Interestingly, in the Fraunhofer Berlin study only 49% of the organizations thought that it is important to define knowledge goals (Heisig/Vorbeck 1998, 7). Compared to the results of the study presented here, it seems that fewer organizations were contented with vaguely defined and documented KM goals.

The second question asked to investigate the level of management of goals dealt with the instruments used for an evaluation of KM goals. Table C-22 shows that most of the organizations with defined KM goals subjectively assessed the achievement of these goals (12 out of 17 respondents, 70.6%).

TABLE C-22.	Instruments for evaluating the achievement of knowledge management
	goals

evaluation of KM goals	frequency	percent
subjective assessment	12	70.59
audit/evaluation team	6	35.29
measuring	5	29.41
others	2	11.76
total	17	100.00

However, almost a third of the respondents said that they were measuring their goal attainment (29.4%). Two respondents indicated that they used other instruments. These were in both cases surveys of the participating employees to evaluate

their KM efforts. These instruments would fall into the category "subjective assessment" which was also indicated by these respondents.

In order to get a more detailed picture about the evaluation of KM goals, the interviewed organizations were asked what measures they used for the evaluation of KM goals. The answers can be divided into the following groups:

**Surveys**. Participants were surveyed according to their needs and expectations concerning KM and to assess employee satisfaction with KMS and KM services. Most organizations used these kind of measures to justify investments in KM.

Usage patterns. Use of KMS was reviewed in some organizations. Simple measures were used for this, such as the number of accesses to KMS, the number of new documents, categories, contributions to newsgroups etc., the average age of documents, the number of participants who have entered information in yellow pages or who have written documents or contributed in newsgroups. Additionally, usage patterns were assessed, such as what are the knowledge elements that are retrieved most frequently or which groups or types of participants accessed what information. However, one interviewee said his organization had stopped the measurement and especially the presentation of usage figures as too many participants "cluttered" the KMS only to achieve the number of contributions they were supposed to have. More generally, evaluation of usage patterns requires caution as

- it might conflict with data privacy regulations (especially in German organizations,
- it might influence the way participants use KMS in a negative way and
- participants might not be motivated to use the KMS if they feel their behavior is monitored

**Success stories**. The KM staff gathered cases in which KM had played a substantial role e.g., winning a contract which otherwise might have been lost or measured improvement of a learning curve in production which can be at least partly attributed to KM. Success stories are a mixture of subjective assessment by participants and objective measures which show an improvement over a period without KMS.

The organizations surveyed by the APQC listed similar items, however, the measurement of usage patterns was slightly more prominent with US organizations as data privacy regulations have been not as restrictive in the US than in German speaking countries (APQC 1996, 62ff). Additionally, Skandia described its measurement system which included indicators and so-called "intellectual capital ratios" on a highly aggregate, organization-wide level (APQC 1996, 63, see also the well documented case of the Swedish financial service organization *Skandia*<sup>33</sup>.

Bullinger et al. found in their empirical study that the definition of KM goals often remained on the strategic level and lacked operationalization (Bullinger et al.

<sup>33.</sup> See Sveiby 1997, Skyrme/Amidon 1997; see also section 8.2.1 - "Intellectual capital approach" on page 400.

1997, 18). According to Bullinger et al., organizations defined the core competencies they needed as strategic knowledge goals, but did not turn them into operational, especially measurable goals, e.g., for individuals, teams or the use of KMS. 60% of the respondents indicated that they determine the knowledge needs of their employees, however, only 20% do this systematically e.g., with the help of instruments for the analysis of demands, moderated workshops or internal projects (Bullinger et al. 1997, 19). They found that most organizations did not measure or evaluate knowledge, although some experimented with abstract "intellectual capital balances" following Skandia's example, a result consistent with the findings of the 1998 KPMG study where only 19% developed or measured intellectual capital and only 11% were planning to do so (KPMG 1998, 13). On the operational level, Bullinger et al. only found very general quantitative measures like the number of accesses to a Web page and no qualitative evaluation of the contents of KMS (Bullinger et al. 1997, 38).

### 12.2.4 Résumé

Organizations have high expectations towards knowledge management. The approach potentially causes high positive returns and is here to stay. There is broad agreement over all empirical studies that KM is a relevant and important topic as the share of knowledge workers and knowledge-intensive business processes is constantly increasing. However, as much as organizations are convinced that the potential benefits of KM are high, as much difficulties they have in establishing clear, well-documented and measurable knowledge or KM goals. The lack of a well-defined and (empirically) proven set of KM strategies is obvious as most organizations aim at a large number of different KM goals at the same time which in many cases are not very well documented.

These findings might be explained by the relative newness of KM to most of the organizations surveyed with many of them still searching for those strategies that form "best" or "good practice" of KM. However, the field develops rapidly. There is a shift in focus of KM initiatives from explication or codification of knowledge to a more holistic, theme-oriented approach. This approach supports the identification and handling of existing knowledge as well as the distribution and sharing of knowledge between members of the organizations, e.g., in networks or communities. KM initiatives aim less at knowledge that crosses organizational borders. Most organizations neither aim at supporting the acquisition of external knowledge, nor do they make use of knowledge developed internally to proactively offer it on the market.

It seems that by now organizations have realized that KM is not an exclusively technical or infrastructural approach, but that a combination of infrastructural, organizational and person-oriented measures promises the most benefits. As almost all organizations try to change their culture with the help of a KM initiative, it seems that organizations also recognize that a positive environment fostering willingness to share knowledge is a prerequisite for an efficient and effective application of KM measures and instruments.

So far, organizations are most successful in achieving rather basic KM goals in both, the codification and personalization side of KM, such as improved access to existing knowledge or improved communication. More ambitious KM goals, such as turning implicit into explicit knowledge or changing culture were achieved to a much lower degree. Thus, it seems that organizations still have some way to go until they achieve the more advanced potentials that KM promises. As the interviews showed, organizations focus personalization and codification at the same time because both strategies promise potentials.