

THE BENEFITS OF KNOWLEDGE MANAGEMENT: SOME EMPIRICAL EVIDENCE

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Abstract

It is about ten years that early adopters started KM initiatives. In recent years we have witnessed, a divide in academic and practitioner discussions as to the effects of KM: One side argues that KM is a passing management fad that has had little or no effect on business performance. Others hold that KM initiatives may well have positive effects provided the initiative the right approach is taken. Up to now, however, little data are available as to the effects of KM in firms. That is why this article shows empirical evidence on the benefits of knowledge management.

Keywords: Benefits of knowledge management, empirical study.

The Benefits of Knowledge Management: Some empirical evidence

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Track: A Managing organizational knowledge and competence

1 INTRODUCTION

It is about ten years that early adopters started KM initiatives. In recent years we have witnessed, a divide in academic and practitioner discussions as to the effects of KM: One side argues that KM is a passing management fad that has had little or no effect on business performance. Others hold that KM initiatives may well have positive effects provided the initiative the right approach is taken. Up to now, however, little data are available as to the effects of KM in firms. That is why we have conducted studies on benefits of knowledge management.

Our empirical evidence builds on three sources:

The evaluation of applications for the award "Knowledge Manager of the year 2002 and 2003". created by the German "Commerzbank" in cooperation with Financial Times Germany and the business magazine Impulse (for further details see www.wissensmanager-des-jahres.de).

1. In total, 48 German enterprises of different industries were evaluated based on a standard questionnaire. Condition for application was that these companies had introduced Knowledge Management over a year ago and have demonstrated an improved performance. Enterprises were asked to state improvements in qualitative and quantitative terms .
2. A survey based inquiry amongst members of the German Association for Knowledge Management (www.wissensmanagement-gesellschaft.de) and the Swiss Knowledge Management Forum (www.swisskmforum.ch)
3. In-depths evaluation of cost and benefits of KM activities in one company (winner of the knowledge manager of the year award 2002)

Since the case study of the winner of the knowledge manager award is described separately in another paper in this volume (see Reinhardt 2004), in this paper we will focus on the first two aspects.

2 Results of the German award "Knowledge Manager 2002 and 2003"

2.1 Results

Evaluation of data is still in progress. That is why a intermediate analysis has been prepared for the purposes of discussion.

The participating companies were divided in two categories: Firms up to 250 employees and firms with more than 250 employees.

Benefits are assessed in categories based on the four Balanced Scorecard (Kaplan and Norton, 1996) perspectives: Learning & growth, internal business processes, customer and financial re-

sults . In our evaluation we have decided to split the perspective “learning & growth” into two sub-categories “innovation” and “employees”, particular to cover the benefits for employees explicitly.

In both years, 2002 and 2003, the applicants were asked to outline explicitly, which benefits have resulted from their Knowledge Management activities.

The candidates made in total 240 benefit statements which we grouped according to the dimensions of the Balanced Scorecard.

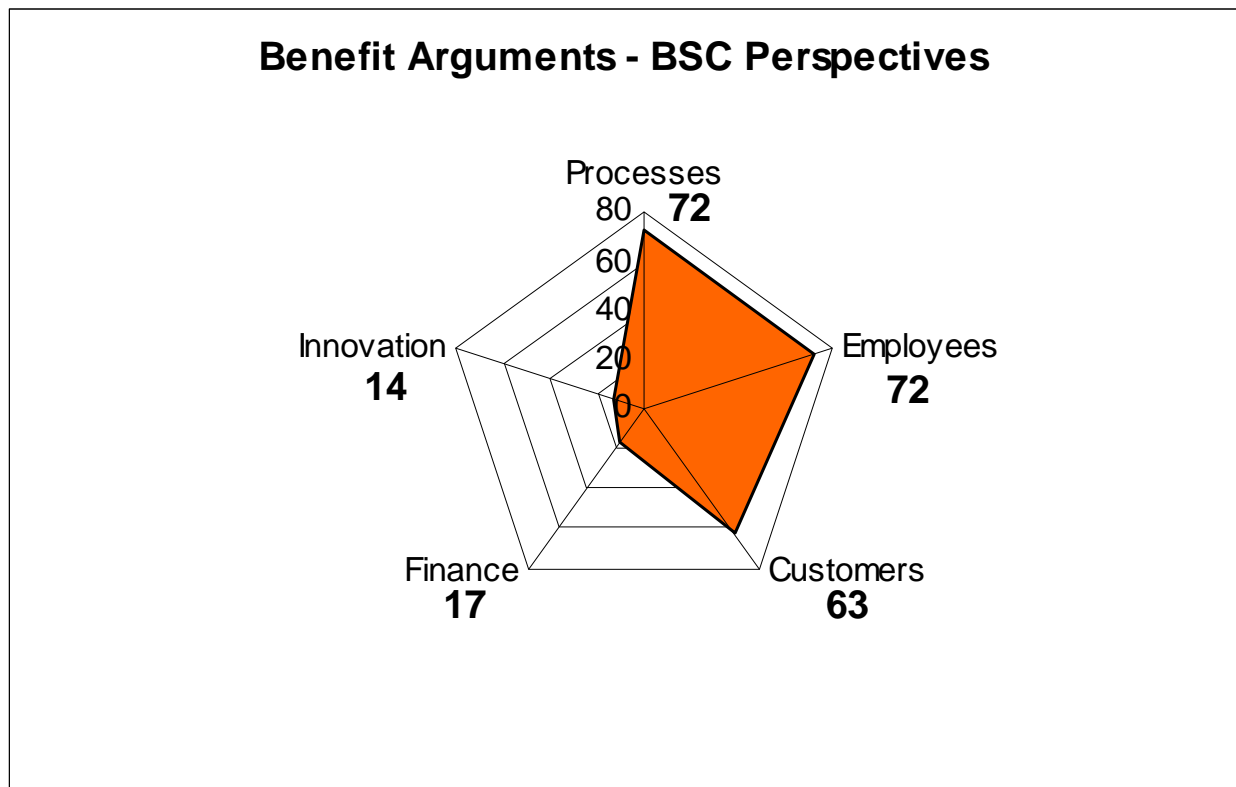


Figure 1: Benefits mentioned by 48 applicants

Figure 1 shows that enterprises harvested benefits related to process improvement and related to employee performance. Relatively few statements referred to the impact of the candidates' Knowledge Management (KM) initiatives on financial results and Innovation. Looking deeper in each dimension we arrive at insights which type of improvements were reported in each category. In a second step of our analysis we will relate these benefits to the type of KM initiative taken.

In the category “**processes**”, benefits have been realized in the area of process acceleration, the reduction of redundancies and the re-use of internal knowledge. Having a look at company size, it turns out that small companies focussed particularly on the re-use of internal available knowledge and the reduction of errors and the big players rank ‘time savings’ and ‘process transparency’ as top benefits in this category. Figure 2 shows the total number of arguments the candidates stated from a process perspective.

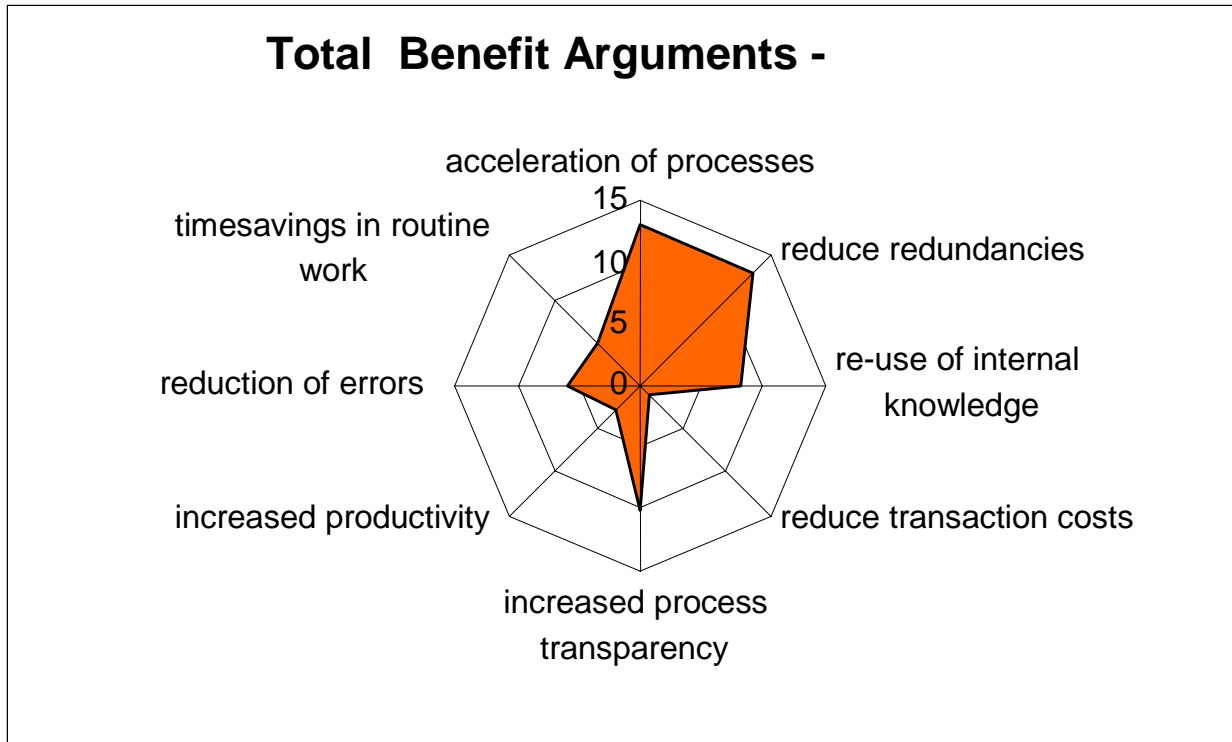


Figure 2: Benefits from a process perspective (absolute numbers)

Related to **employees** dominant arguments are increase of motivation, enhancement of personal Knowledge base and shorter on-boarding time for new employees (see Figure 3).

For small companies, competence development represents a significant benefit and improved teamwork is mentioned by big enterprises as key benefit in this category.

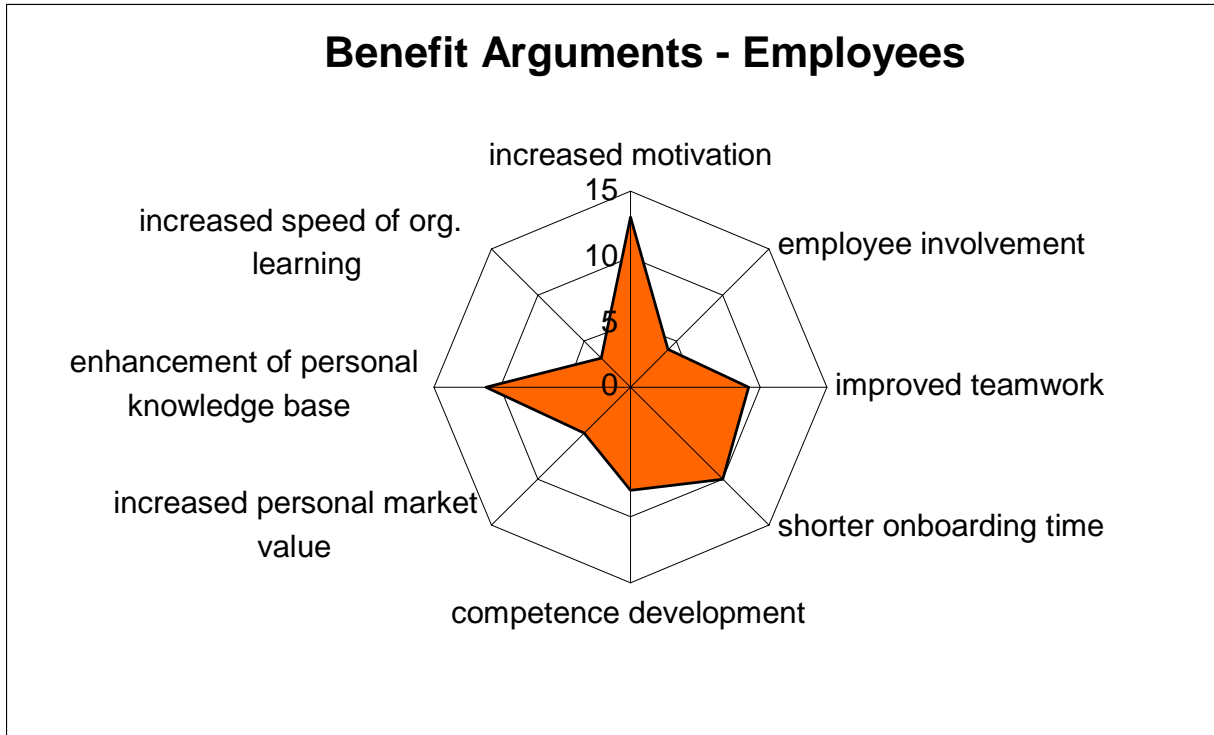


Figure 3: Benefit arguments from employee perspective (absolute numbers)

In relation to **customers** firms argue that KM activities have led to an increase in quality of products and services. This applies irrespective from company size.

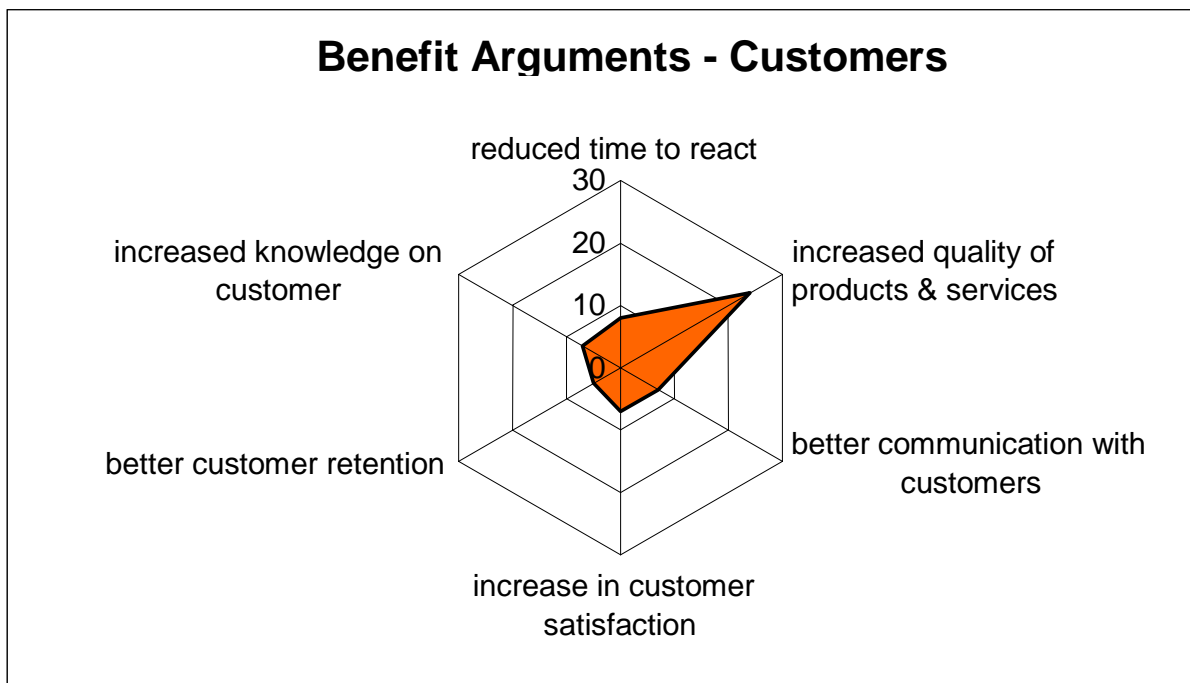


Figure 4: Benefit Arguments 'Customers' (absolute numbers)

Benefits in the area of **'financial results'** represent only 7% of total arguments. An increase in turnover, an improved risk management and reduced administration costs are major arguments in this category. Some firms presented calculations how a better availability of information reduces search times and the what the related cost savings potential is.

Knowledge Management activities of the applicants had, with 7% of total statements, only minor effects on the companies **innovation** power. Dominant argument is the creation of new products & services, followed by –mainly mentioned by big companies - the application of new technologies

2.2 Benefits in relation to KM approach taken

It seems plausible that the type of benefits derived from KM initiatives depends on the Km approach taken. Therefore we classified each firms KM initiative into one of the following categories, which can also be viewed as “maturity stages” of KM in a firm:

1. IT-centred approach: Intranet solutions and databases are implemented along with the necessary content and user management
2. KM solutions applied to specific problem areas: Solutions to document, exchange, reflect knowledge for a specific purpose (e.g. personnel services, after sales service, e-learning solutions)
3. Professional Knowledge Management (comprehensive strategy of KM supported by the necessary media and infrastructure to support identification, retrieval, exchange and development of knowledge in close relation to the “real business”. KM activities are integrated into business processes as well as into project management. Communities of Practice“ and „Competence Centres“ support the transfer of knowledge. Remuneration and performance appraisal promote co-operation and re-use of knowledge.
4. Integrated Knowledge based management: The core values of the firm and the real behavior of leaders and staff are characterized by open communication, high degree of renewal, actively learning from outside and a “boundaryless behavior” Management and information systems support these values and behavior

More than one third (35%) of the applicants for the award still seem to believe that KM can be implemented successfully by applying IT tools in order to facilitate transparency and transfer of information. About 35% of the analyzed companies developed KM solutions applied to specific problem areas. Special knowledge such as customer knowledge, service knowledge or knowledge about human resource management is available. Support is often given via help-desks and experts.

“Professional Knowledge Management” is applied by about 30% of the participating companies. At this stage the value of KM is often measured rudimentary. According to our assessment, the fourth stage of maturity hasn’t been achieved by any applying company so far.

Dependant on the chosen approaches, we are able to prove that the benefits of KM initiatives differ significantly (see Fig. 5). In general, KM programs based on IT-centred approaches have the highest effects on internal business processes. A KM solution applied to a specific problem area yields benefits particularly visible under a client and a process perspective. For professional KM approaches a higher number of benefits are stated and relate in the first priority to the employee perspective, followed by processes and clients results in benefits are spread equally over the five perspectives.

Benefits reported for the different perspectives of the Balanced Scorecard are interrelated. Increased process transparency (reported for IT centred initiatives) leads to shorter on-boarding time of new employees in the client perspective.

All three approaches are concentrating on a more effective use of knowledge sources, the generation of new knowledge and thus the stimulation of innovations is not a mayor outcome of the KM initiatives of the firms applying for the award knowledge manager of the year.

	IT Centred	Specific Solutions	Professional KM	#
CLIENTS				
Reduced time to react	3	3	2	
Increased quality of products & services	6	8	10	
Better communication with customers	2	3	2	
Increase in customer satisfaction	1	4	2	
Better customer retention	2	2	1	
Increased knowledge on customer	3	2	2	
Other	1	1	3	
Total benefit statements clients	18	23	22	63
EMPLOYEES				
Increased motivation	4	1	8	
Employee involvement	1	1	2	
Improved teamwork	1	4	4	
Shorter onboarding time	4	2	4	
Competence development	2	2	4	
Increased personal market value	1	1	3	
Enhancement of personal knowledge base	3	3	5	
Increased speed of org. learning		2	1	
Other	2	3	4	
Total benefit statements employees	18	19	35	72
PROCESSES				
Acceleration of processes	3	5	5	
Reduce redundancies	5	3	5	
Re-use of internal Knowledge	1	4	3	
Reduce transaction costs	1			
Increased process transparency	4	2	4	
Increased productivity	2		1	
Reduction of errors		3	3	
Timesavings in routine work	1	1	3	
Other	4	4	5	
Total benefit statements processes	21	22	29	72
FINANCE				
Better risk management		2	1	
Increased turnover	3	3	2	
Increased market share	1			
Optimized marketing efforts		1		
Reduced administration costs	1	2		
Other		1		
Total benefit statements Finance	5	9	3	17
INNOVATION				
Improved R&D	1	1	1	
Application of new technologies	2	3	2	
New products & Services	1	1	1	
New business segments		1		
Other				
Total benefit statements Innovation	4	6	4	14
TOTAL BENEFIT STATEMENTS	66	79	93	238

Figure 5: Benefit statements of applicants according to KM maturity stage

2.3 Conclusion

The competition “Knowledge Manager of the year” showed for 2002 and 2003 that managers are aware of the value of knowledge and the various benefits of Knowledge Management. Positive effects on business processes, customers and employees could be proofed whereas the effects on a company’s financial results remain open. Straightforward cause effect relations can only be witnessed in a few number of cases. The classical argument model based on time savings in e.g. easier retrieval of information or re-use of knowledge seems to be only partly valid. It is rather the quality of work that is improved and might contribute on a mid or long term basis to improved financial results.

Knowledge management is seen as an approach mainly to increase effectiveness of knowledge resources. Little has been done to use KM as a tool to boost innovation.

As it is difficult to put a value on missed opportunities companies seem to be often unaware of their unexploited potential of intellectual capital. To relate KM and innovation in firms remains a management challenge for the future.

3 Survey: Benefits of Knowledge Management

3.1 Introduction

Reinhardt (2002) has conducted a survey, the participants of which have been members of either the German Association for Knowledge Management (www.wissensmanagement-gesellschaft.de) or the Swiss Knowledge Management Forum (www.swisskmforum.ch). The members of both associations are managers, consultants, and scientists; the response rate has been 30 per cent.

The background of this study was the observation of an increasing reputation problem of KM within the managerial and organizational field. Hence, the goal of this study was to identify benefits as well as weaknesses from the perspective of KM professionals in order to identify action areas to improve the reputation of KM (see also Reinhardt 2003).

The study included questions with regard to six dimensions:

- Operational benefits of knowledge management
- Strategic benefits of knowledge management – knowledge management as a strategic resource
- Barriers regarding the implementation of knowledge management
- Measures for knowledge management

- Stakeholder of knowledge management

3.2 Operational benefits of knowledge management

In figure 6 an overview of operational benefits of knowledge management is given. The following results seem to be important:

- The expectations of participants are related only to a mean level.
- From a content perspective the operational potentials can be linked to the „soft side“ of management contrary to its „hard“ side.

Summarizing these results it becomes clear that the respondents show a – more or less unexpected – level of skepticism regarding the operational benefits of KM.

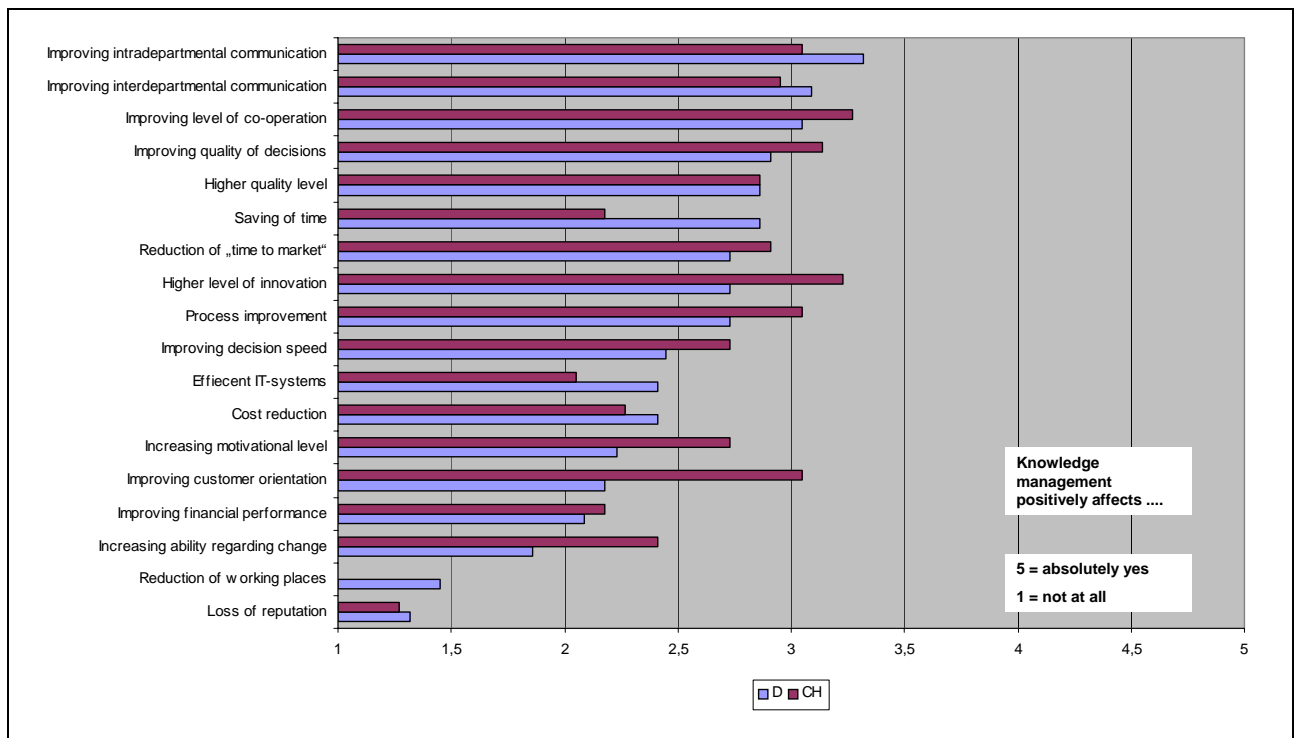


Figure 6: Operational benefits of knowledge management (Reinhardt/North 2003)

3.3 Strategic benefits of knowledge management

In figure 7 an overview of strategic benefits of knowledge management is given. The following results seem to be important:

- Again, the expectations of the respondents do not exceed a medium level.
- From a content view, KM is linked to long-term competitive advantage, but there are only weak ties to traditional drivers of strategic performance (improved bargaining power against customers or suppliers; cf. Porter 1980, 1989).

Summarizing these results, the skepticism mentioned above can be identified anew.

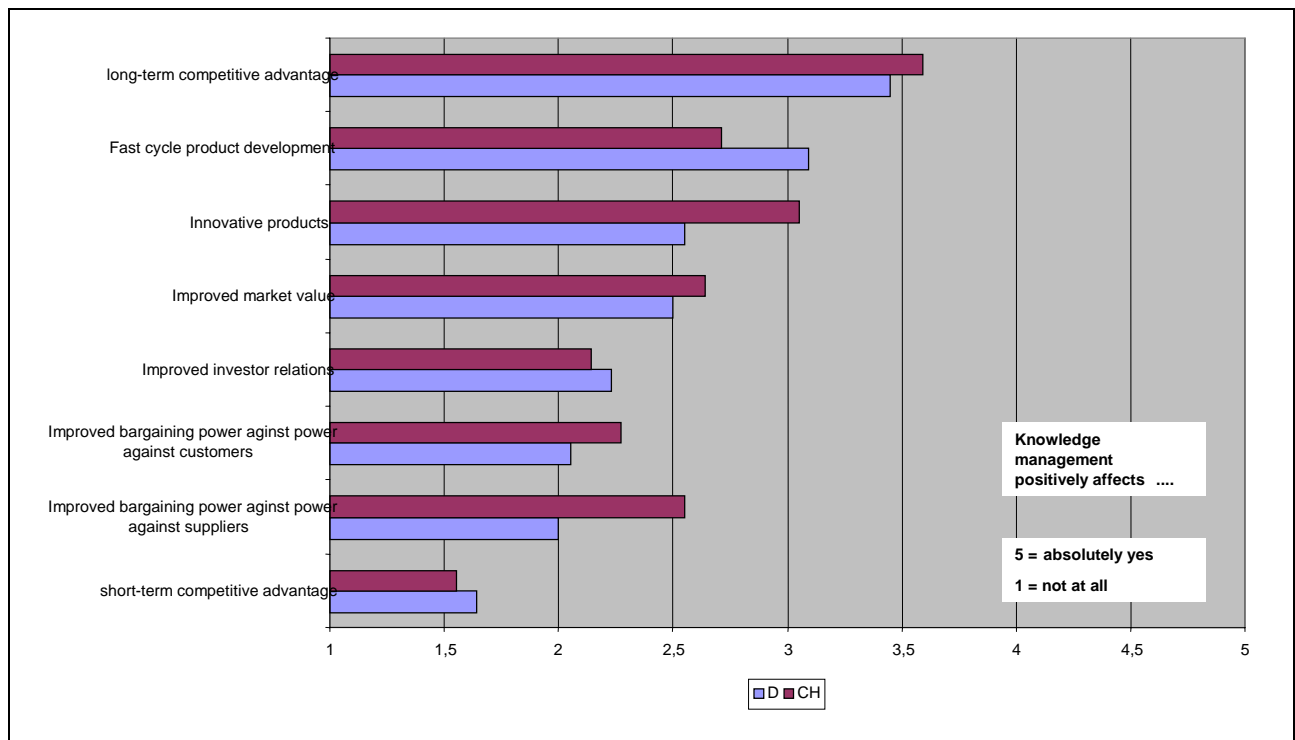


Figure 7: Strategic benefits of knowledge management (Reinhardt/North 2003)

3.4 Barriers regarding the implementation of knowledge management

In figure 8 the most important barriers regarding the implementation of KM are shown. The following results seem to be important:

- Again, the expectations of the respondents do not exceed a medium level.
- From a content perspective, the most important barriers can be related to „soft factors“, to lacking trust of senior management, to the inadequacy of tools, and to time related problems.

Summarizing these results, it becomes clear that there are no significant differences regarding the different barriers.

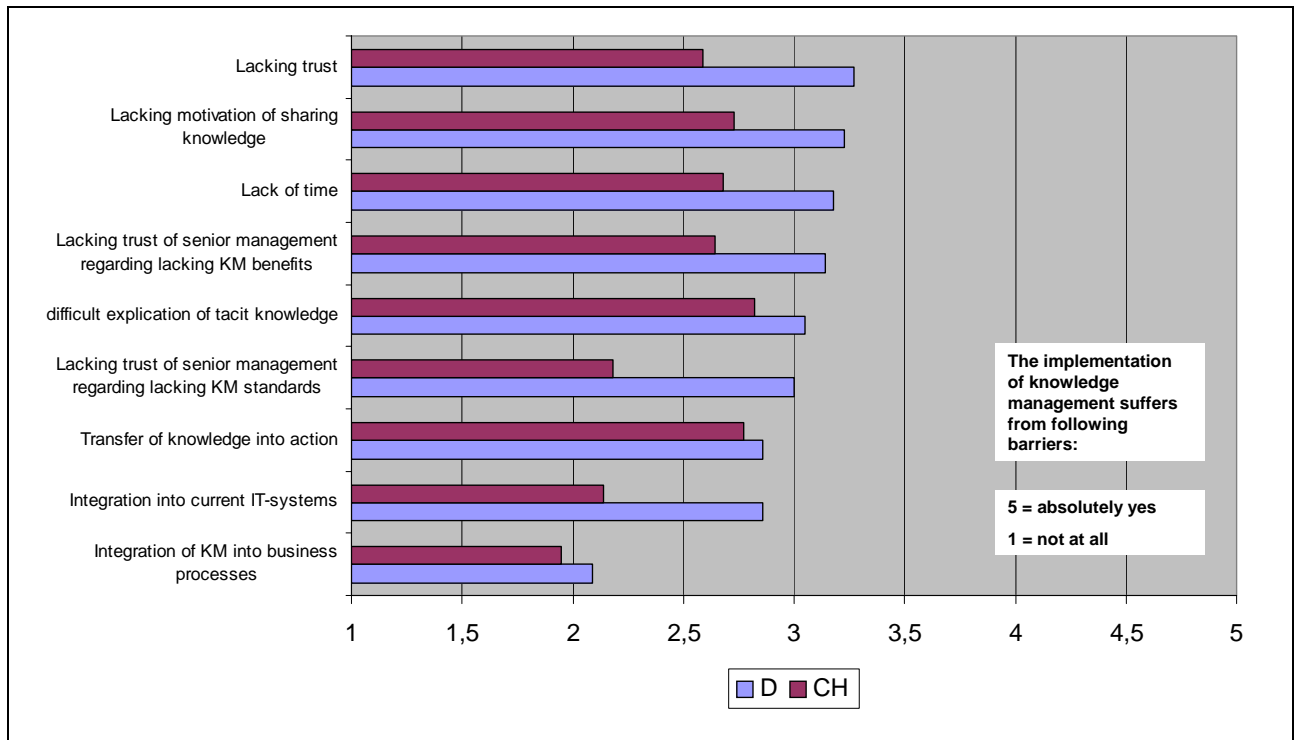


Figure 8: Barriers regarding the implementation of knowledge management (Reinhardt/North 2003)

3.5 Measures for knowledge management

In figure 9 the relevance of different sets of KM measures are shown. The following results seem to be important:

- Non-financial measures from process-, customer- and employee-perspective seem to be very important
- Financial indicators are relevant from a project perspective only; From a content perspective, the most important barriers can be related to „soft factors“, to lacking trust of senior management, to the inadequacy of tools, and to time related problems.

Summarizing these results, there again evidence can be detected that KM can be understood as a set of managerial methods that the relation of which to financial performance seems to be weak.

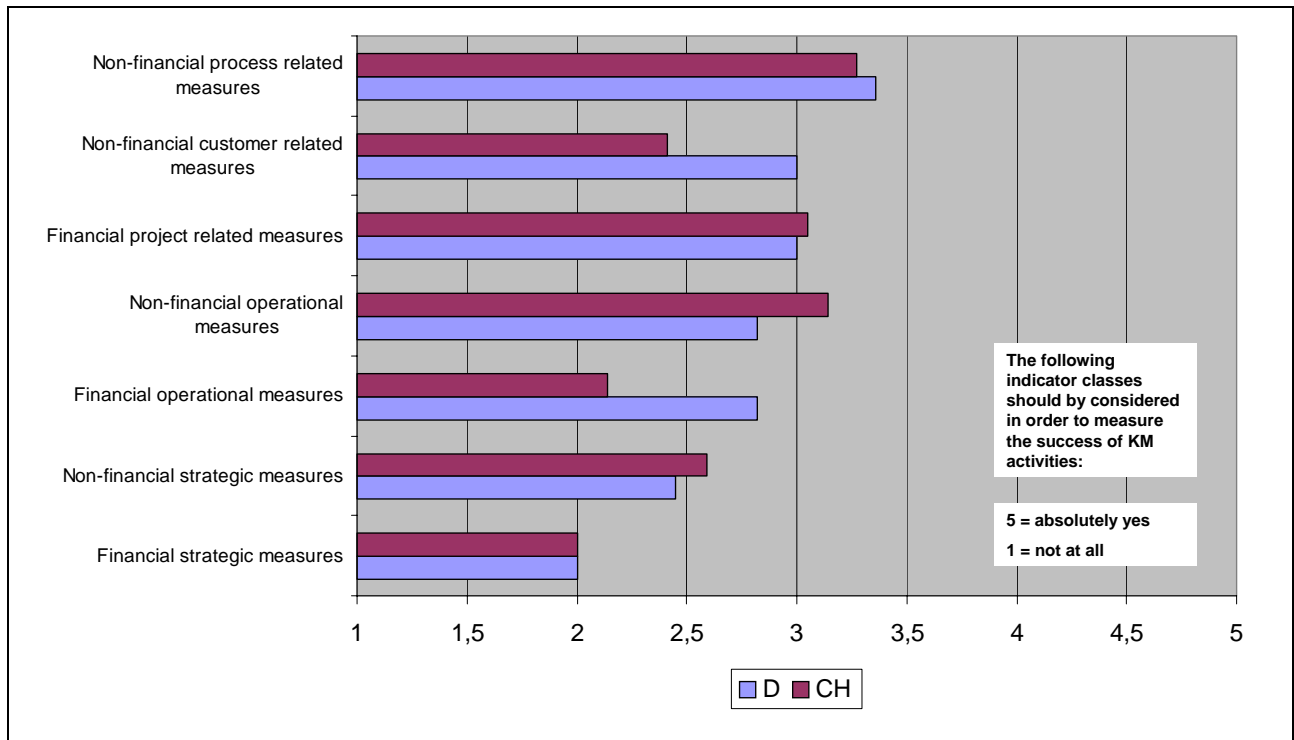


Figure 9: Measures for knowledge management (Reinhardt/North 2003)

3.6 Stakeholder of knowledge management

In figure 10 evidence of the key stakeholders of KM activities are shown. The following results seem to be important:

- Internal stakeholders seems to be more important than external ones.
- The most important internal stakeholders can be directly linked to the history of KM development (Reinhardt 2003: HR, R&D, IT).
- Regarding external stakeholders customers and suppliers are more important than investors and analysts.

These results can be interpreted as follows: KM seem to be more or less an „internal approach“: It helps to improve internal – intraorganizational – benefits, but is not so important with regard to „external value generation“.

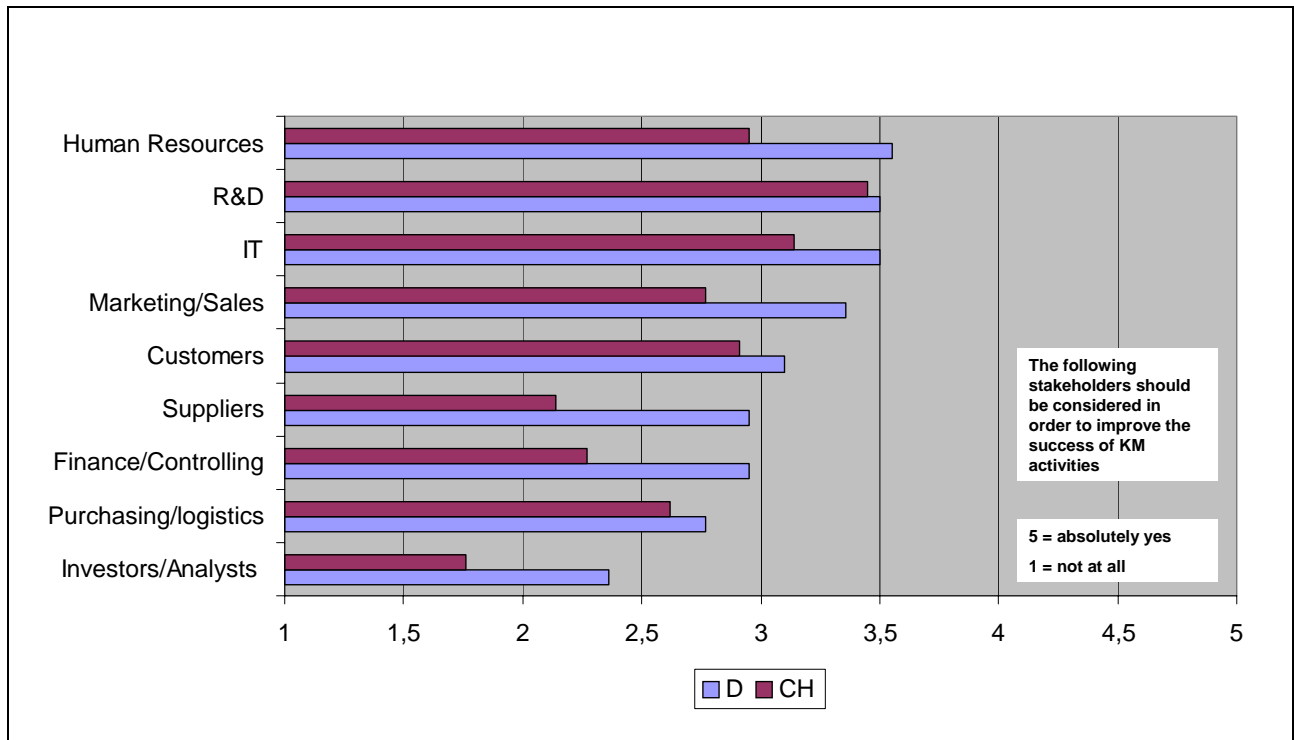


Figure 10: Stakeholder of knowledge management (Reinhardt/North 2003)

3.7 Conclusion

If we want to interpret the results of this survey, it becomes clear, that the participants show a high level of skepticism regarding the benefits, the impact, and the future of KM: Contrary to mid 90s-publications, the KM related euphoria has been removed by pessimism or at least realism.

Taking into account the KM related experience level of the participants of this study, the results make clear, that KM seem to be an approach to improve operations but not seem to have a strategic impact at all.

Hence, the question has to be answered, if KM has been or is a managerial fad similar to business process reengineering in the early 1990s.

4 KNOWLEDGE MANAGEMENT: BENEFITS OR MANAGERIAL MYTH?

Comparing the results from the award (chapter 2) with these from the survey (chapter 3) a major gap can be identified: On one hand the participants of the German „knowledge manager of the year“-award show clear evidence of KM's impact and benefits – on the other hand the survey provides us with a very disillusioning picture of KM's relevance.

How can this enormous difference be interpreted?

From our perspective, the difference between both results can be explained if we leave the general level of KM as a methodology or a toolbox, and move towards the specific level of the implementation approaches.

If we consider the huge amount of references regarding failures of implementation programs during the last three decades, the following interpretation seems to have a high level of relevance. The difference between the content of the subsequent chapters can be linked to the implementation quality of KM programs:

- The award participants show high level of KM-related impact on organizational performance. Hence, it can be argued, that the implementation process of each of the different KM activities must have had a high level of quality.
- Contrary to this interpretation, the participants of the survey report results, that may stem from more or less low quality KM implementation processes.

Due to lacking empirical evidence this interpretation must be understood more or less as a „pure hypothesis“. Nevertheless, the reader should decide by him or herself if this hypothesis owns a high level of plausibility by comparing his or her KM experiences with the list of barriers during the implementation of an organizational change process.

Barrier	Description
Internal focus	Organizations either fail to find or reject ideas and information from outside – the so-called “not invented here” syndrome.
Lack of credibility	Information sources, recommendations, and reports are perceived as political or biased and not taken seriously.
Secrecy	A need-to-know culture prevents people from developing a general perspective on important decisions and denies access to information required for specific situations.
Lack of proper skills	The people involved in the implementation of change are assigned with little regard to training or skill. There is little training or support from experienced people.
Lack of resources	Attempts to implement change are made without providing adequate resources. People are asked to do things „in their spare time“.
Lack of discipline	Management will not kill projects; the process to choose among projects is inconsistently applied; there are many „special cases“.
Lack of strategy	Corporate strategies are either vague vision statements or over-specified long-term plans. Neither provides much guidance. The result: conflicting priorities, and general confusion.

Metrics are misused	Predictions are turned in commitments. Uncertainties are represented by misleadingly precise forecasts. Historical measures are used for punishment rather than learning.
Tendency to oversimplify	Firms face increasingly new situations and systems and less time for really understanding them and developing perspective. Faced with too much data and not enough information, people tend to oversimplify to deal with overload.
People are reluctant to change	The new practices upset the status quo; people move to protect their positions and interests. Making a change leads those who built the current system to feel that they did a poor job.
Power and politics	Loud advocates, fear of accountability, resistance to relinquishing control, fear of being seen as disloyal, and lack of trust all conspire against the implementation of change.

Table 1: Failures of change management (cf. Matheson & Matheson, 1998, p. 89)

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