Combining Knowledge and Change Management at Consultancies

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Abstract: Knowledge is a strategic resource of knowledge-intensive organisations, its effective management is critical for competitiveness. Choosing any kind of KM approach, organisations has to face changes even introducing, or even developing their KM practice. This paper analyses the relationship between change and knowledge management processes, between change management supporters and KM enablers. The research of consulting companies presents, that neglecting any part of supporters or enablers has negative impact on the whole knowledge management practice.

Keywords: knowledge management, change management, knowledge enablers, knowledge-intensive organisations, knowledge management strategy

1. Introduction

Knowledge became strategic resource of organisation, as the basis of competitive advantage. Since the mid 1990s, knowledge management (KM) has been developed into a strategic practice of knowledge-intensive companies.

Several theories exist to create a framework of knowledge management activities. Early models concentrated on one subtask of KM activities by an explanatory approach (Heisig, 2002). In the past few years the development and justification of integrated, holistic frameworks have started. These models present not only the dominant KM processes, but also their environment and influence factors.

Tissen et al (1998) identifies the operative level of knowledge management beside strategic level. At operative level, human actors and knowledge distribution systems are connected, while the goal of strategic level is to synthesise the relationship among the business strategy, knowledge workers and supportive organisational structures and processes.

Wiig (1999) concentrates on the strategic level, and identifies 4 strategic approaches of knowledge management efforts that are rarely combined. The four areas are the information management/information technology (IM/IT), intellectual asset, people and enterprise effectiveness focus. The IM/IT and people focused approaches clearly determine the used tools and solutions, while the other approaches are open for every possibility.

In the model of Stankosky (1999) the internal and external success factors of KM are identified. Based on Bixler (2002) all of the presented 4 factors have to be implemented in order to provide successful knowledge management practice. Researches emphasise the role of supportive IT solutions, organisational structures and processes, leadership, climate and business culture and organisational learning possibilities. Similarly Lai and Chu (2000) analysed the influence factors of knowledge (especially distribution) processes. The research identified technology as the most powerful factor, but the different management solutions (metrics, incentive system, leadership, values and culture) are also important.

The common of the holistic models is the combined analysis of different KM tasks and possible influence factors. Rubenstein-Montano et al (2001) emphasised the importance of the system thinking approach, in which case KM efforts have to support business goals.

1.1 Socio-technical roots of KM

There is an endless discussion about the role of technologies (especially IT) in knowledge management between researchers and practitioners. While Daugherty denies the determinative role of technologies, Michael J. Turillo argues for the basic role of it (Hildebrand, 1999). Some researchers are trying to synthesise the different opinions, by emphasising the importance of technologies, but also pointing out that technology itself is not able to create working processes and

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behaviour (Junnarkar and Brown, 1997; Gubley, 1998, Bőgel, 1999).

Based on partly this discussion Sveiby (1998) identified the human-focused and IT-focused KM approaches. In a research of consultancies Hansen et al (1999) realised the practical appearance of these approaches in KM strategies that were identified by personalisation (emphasis on face-to-face knowledge sharing) and codification strategies (emphasis on using IT and representation efforts). The research presented, that consultancies have to concentrate either on the strategies, and efforts of equal combination can lead to failure.

The research of Truch and Bridger (2002) presented, that organisations, which have successfully implemented knowledge management practice used a combination of personalisation and codification strategies. Other authors also argue that combined strategies effect higher efficiency (Wiig, 1999; Adelmann and Jashapara, 2003), and pose the question whether this obligatory choice is only the specialty of consultancies? Or, having both side right, organisations have to start with either strategies, and later they are developing the other side, and achieving the balanced practice?

The combination of technological and organisational solutions has an origin of labour researches in the 1950s, when the Tavistock Institute studied the English coal-mining industry, in which there were problems with productivity after introducing new technologies (Trist, 1978). The research presented, that using technological solutions is not independent of human and social aspects. The problem is that both technological and social sides ignore each other, while the combination is required. Rubenstein-Montano et al (2001) argues for the importance of system thinking approach of knowledge management practices, where every factor is counted. The question is, whether the theory of socio-technical systems is also working in the case of modern technology supported KM practices?

1.2 Change management and KM

In the research of Tavistock Institute the introducing of new technology has strong impact on the organisation, working life and excepted behaviour. Knowledge projects are also changing organisations: introducing a knowledge management practice requires the change of daily routine, behaviour, and often the processes and organisational structures. Therefore, it is required to take the theories of change management into consideration. There are several researches that analysed the different approaches and success factors of changes.

The classical research of Kotter (1995) analysed the possible failure factors of change processes, and identified 8 steps of the change management process. The required condition is the feeling of urgency for change that is able to start the change process by giving power to step out of the status quo. The other steps are the followings: forming a good team (supportive coalition), create a vision of change, communicate the vision, remove obstacles, change fast (create short term wins), consolidate results and keep on changing while embedding changes into culture.

Employees usually resist change, because they have to give up the usual processes of work and behaviour, and they have to form a new personal contract with the organisation. In order to achieve the commitment of employees, executives must define new terms of employment relationship in 3 dimensions (Strebel, 1996): formal dimension (job description, tasks and processes, relationships, compensation), psychological dimension (equity of work and compensation) and social dimension (unwritten rules, values). Employees have to be persuaded to accept the changes in these dimensions, otherwise they will resist, block the changes or leave the organisation.

The changes of the environment pressurise organisations for renewal, adaptation, but in continuous change employees become exhausted, that can destroy organisations. Abrahamson (2000) the approach of dynamic stability, in which organisations change by little steps, based on the development of existing practices and processes.

Hirschhorn (2002) suggests, that change processes should be organised not as one big task, but divided into three tightly linked but still different approaches: the

political approach includes the coalition forming and change of the organisational structure; the marketing approach involves key employees and listens their ideas, and the military approach provides the attention and the commitment of managers by building insurgent initiatives. These approaches should run simultaneously in order to achieve success.

To summarise the recent researches of change management, beside the important role of managers of organisations to conduct change, the importance of the employees themselves increased. Especially in the case of knowledge intensive companies, knowledge workers want to be part of decisions and changes, they want to understand the reasons and possibilities (Kim and Mauborgne, 2003; Tampoe, 1993). To involve employees, the role of fair communication and trust increases, and by achieving the support of employees, culture is more likely to change.

2. Research framework

For successful competition, based on the knowledge assets of an organisation, the conscious management of this strategic resource is required (Zack, 1999). Knowledge management strategy of organisations defines the utilisation of knowledge required for supporting and accomplishing organisational strategy (von Krogh et al, 2000). It includes the goals of knowledge management together with the tools, methods and approaches to accomplish it.

Developing knowledge management practice of an organisation can be based on either the threats of external factors (increasing competition, better practice of competitors, etc.) that pressurise the behaviour of the organisation or internal initiatives that provides opportunities to be the best in the market, or to prepare proactively for future threats. Knowledge management strategy consists of either external factors or the internal possibilities of organisations (Zack, 2000). Nonaka and Toyama (2003) argue that a knowledge management strategy is the reflection for the internal possibilities and external position of an organisation.

Knowledge management processes can characterised by their purpose: assessing and mapping knowledge assets (Stewart, 1997; Sveiby, 1997; Klimkó, 2002), leverage knowledge (sharing, transfer and use – Szulanski, 1996; Weggeman, 1999) or developing knowledge (creating new knowledge, organisational learning – Nonaka and Takeuchi, 1995; Argyris, 1992; Pemberton and Stonehouse, 2000).

Knowledge management strategies can be developed based on different approaches: existing knowledge of organisation can be exploited or new knowledge can be acquired and developed (von Krogh et al, 1994; Hedlund, 1994; Volberda, 1996); personalisation or codification (Hansen et al, 1999); conservative or aggressive strategies (Zack, 1999). Earl (2001) and Klimkó (2001) organised the different approaches into schools. Independently of the used approach, knowledge management strategy of an organisation has to appear in organisational and technical architecture (Zack, 1999).

Technological solutions provide the possibility of effective management of codified (store, process, transfer) knowledge. Information and communication technologies (ICT) decrease the barriers of knowledge sharing and transfer (Hendriks, 1999). Although IT solutions (knowledge management support systems - KMSS) have a key role of supporting KM practices, management understanding of their possibilities and limits is also required (Liebowitz, 2001). There are several possibilities to support KM processes: creating knowledge by data-mining systems (Fayyad and Stolorz, 1997); discovering knowledge by intelligent agents (Malone et al, 1997); supporting cooperation, coordination and communication (Gábor, 1997); using knowledge repositories (Simon, 2001) or applying expert systems (Liebowitz and Beckman, 1998).

The several possible supportive factors of organisational solutions are widely discussed in the general management, and KM literature. Researches presented, that even each of the general management factors can have affect to KM practices: Organisational structure can be a barrier of effective use of KM efforts, therefore conscious reorganisation, new

structures and new roles are required (Spender, 1996). Human resource management activities have to face the more important selection of valuable and appropriate employees, the different motivation factors of knowledge workers, and also the increased requirements of the management (Woodruffe, 1992; Tampoe, 1993). Banks (1999) emphasises the importance of the supportive culture of KM processes, which hardly have to be based on trust (Huemer et al, 1998). Guns (1998) argues for the role of leadership, the role of the managers, their behaviour that employees can follow, and what is able to motivate them.

In order to measure the effectiveness of any practice or process, a well-defined measurement system is required, with feedback possibilities (Ahmed et al, 1999). Measurement can include the monitoring of performance indicator, analysis of process effectiveness, questioning workers in the KM system.

Reviewing the literature of Knowledge Management several factors can be identified, which has impact of the effectiveness of KM activities (figure 1.). Lai and Chu (1999) identify them as knowledge influences, Handzic and Jamieson (2001), likewise Chauvel and Despres (2002) name them as enablers of knowledge management activities.

Based on the presented research framework this paper analyse, which of the presented factors have impact on knowledge management practices in consultancies and what is their relationship with each other, with special regard to the technology-management relations. The paper explores the connection between supportive factors of change management and knowledge management practice, in order to discover whether the factors those are required for change projects are also required for continuous KM practices.

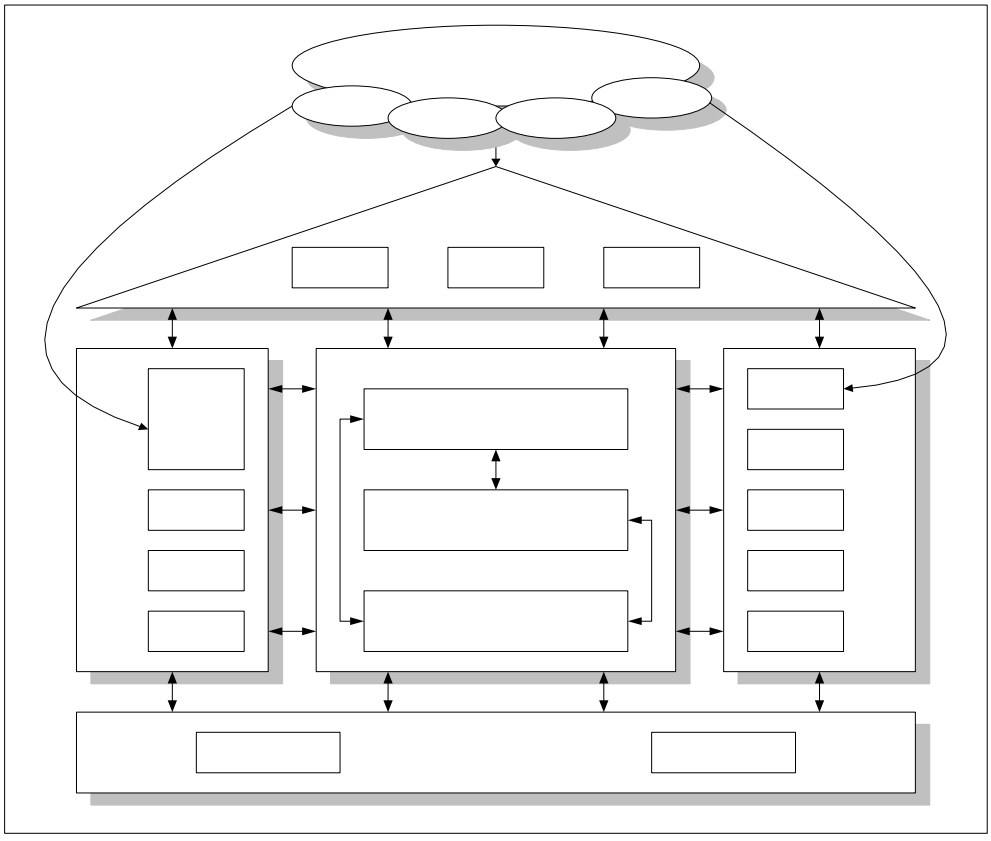

Figure 1: Enablers of KM - Research framework

3. KM practice development at consultancies

This study is part of a research, which examines the knowledge management practice of some consultancies in Hungary. Consulting companies are typically knowledge-intensive organisations, transferring external knowledge to their customers by providing

solutions (Apostolou and Mentzas, 1999). Consultancies sell the expertise and knowledge by their well-educated employees, which are based on the past experience, competence and knowledge of newly hired employees, and newly gained experiences from accomplished tasks at the customers. Consultants not only provide knowledge for customers, but also develop the knowledge base of their own companies by processing experiences. Consultancies were not only the pioneers of popularisation of the idea of knowledge management, but also the first investors to knowledge management solutions for themselves (Wiig, 1997).

In this part two consulting companies are presented, which have been selected by their characteristics. The selection of organisations is not accidental: these companies used radically different approaches to introduce their KM practices. Although there are similar companies, the presented organisations have some unique and interesting features. Information gathering has been accomplished by personal interviews of members of organisations, observation and document analysis. Owing to the request of organisations for anonymity, names are altered. During the presentation of cases, the different aspects of organisations are compared and later discussed.

3.1 Overview of the researched cases

Both companies are dominant players of Hungarian IT and Management consulting sector, and therefore they are competitors of each other. *IT-Consult*[1] is an international consulting company, of which IT-consulting department at the Hungarian office were examined, that provides different IT and management solutions (information and e-business strategy, IS audit, selection, etc.), beside classical consultant activities. The organisation is the result of the merger of two international consulting companies in the middle of 1990s. One of the former companies was among the pioneers introducing their own KM system, and this – mainly technological – approach became the basis of the common system of the unified organisation. The goal of knowledge management practice is to support the project works, and the personal education.

The history of *MR Consulting* started like many of the privately owned consulting companies. It was founded just before the merger of IT-Consult, with around 10 experienced employees and with a charismatic leader, who formerly worked for international consulting companies – now competitors. The organisation focuses on the IT and Management consulting activities (strategy, system development, selection), and it is a viable competitor of IT-Consult. Over the years the company became a dominant player of the Hungarian market with over 100 employees. The vision of the founder was an open, tolerant culture, where employees can count on each other. The goal of the not totally conscious knowledge management approach is to share experience based knowledge to support the work of each others.

3.2 KM strategies

In the case of IT-Consult one of the two merged companies started to develop its knowledge management practice in the mid-1990s. In its approach, the organisation standardised and centralised the processes. The knowledge management approach was characterised by a very intensive use of technological solutions: building centralised knowledge base, to support the geographically dispersed employees by providing the possibility to log in to the global network.

Both before and after the merger, it was highly important to consciously manage the knowledge assets of the company. By having a knowledge management program, this company was among the pioneers involved knowledge management to their daily, operative practice. Having a KM practice provided the possibility to strengthen the competitive status of the organisation. The knowledge base stored the formalised experiences of employees, detailed project and tendering information, and external information about markets,

[1] In the research, four organisations (having both personalisation and codification KM strategies) were deeply analysed, and some other to complement findings. For this paper two characteristic cases were selected in order to prevent repetition of very similar features of some cases that were based on applied KM strategies. In some aspects the similarities are so strong that cases are easily interchangeable by accident.

industries, tendencies and solutions, provided by international researchers.

The knowledge management practice was not so conscious in the case of MR-Consulting: starting from the foundation, the company relied on the expertise of its employees. Almost all of the employees of the new organisation had experience at consulting companies and had outstanding personal skills and competences. Because of the starting size of the company, personal knowledge sharing was the most efficient solution: everybody knew not only everybody, but also the work they were doing.

Over the years of expansion this approach was applied generally, coordinated by the HR department. Personal communication and knowledge sharing had priorities. The management of MR Consulting knew, that expertise was required to be a viable competitor on the local market, and later on the international market, and emphasised the development of every employees.

3.3 Technological issues

IT-Consult has built a central knowledge base that is in fact a centralised document management system, using the very popular Lotus Notes solutions, and accessible through intranet from every part of the company, and also for executives even from outside. In this system databases store industry, market and service specific project and personal experience, solutions. Beside international information, regions and even countries have also local information. Databases are searchable by different conditions and refreshed regularly. Employees receive information about the continuous renewal of databases.

Because of the followed approach of MR-Consulting, there was no heavy investment into technological solution. Projects were partly documented in structured directories on a central server of a company, but it was only reachable in the HQ office. There were also some prepared templates to support the tendering process. Unfortunately the widest information source, the access to the Internet was restricted to employees: the company gave preference for using the existing external knowledge.

3.4 Organisational issues

3.4.1 Organisational structure

As a common practice of consulting companies, both analysed organisations have a project-oriented organisational structure. Although the hierarchical structure of them builds up as the carrier way of employees (junior and senior consultant, manager and partner – or similar equivalent positions) the project structure is temporary, and partly independent.

IT-Consult organised its basic structure as a matrix organisation: groups of services and groups and industries. In the case of MR Consulting neither this matrix solution, nor any formal grouping solution did not exist. Since the beginnings, the company acted as a big family, without formal divisions.

While IT-Consult emphasised the formal presence of KM activities in the structure, MR Consulting had neither formal supportive, nor co-ordinating unit. In MR Consulting every KM related task belonged to the HR department, based on the nature of the tasks. IT-Consult organised a central knowledge group, to support KM activities by structuring and developing existing knowledge, and providing training possibilities. The task of this group was the promotion of the use of the KM solution.

The only supportive solution in MR Consulting was rather communication than structural solution: in order to have the actual information about ongoing projects and works, weekly/2- weekly organisational meetings were conducted. The role and effectiveness became questionable, because the number of employees was increased and participation became voluntary.

3.4.2 Culture

Although one of the most basic values of IT-Consult is the importance of knowledge and knowledge sharing, this value was rather noticed in the Hungarian office. Employees accepted the use of the knowledge base, but they have no motivation to submit new documents, formalised experiences. As in many other companies, spending time with formalisation of documents was rather like

punishment than accepted and honoured work.

Having a knowledge-base provided an easier possibility of work: employees searched and find the required documents, and used these documents to create their own documents. It was easier just to "copy and paste" parts, than process the information combined by personal ideas and experience to provide a unique and tailor-made solution. This behaviour is very common although not everybody does it: *"To start a new work, the easiest way is to check past works, finished projects. It is quite common to rewrite or to specify old documents, which is simpler [than creative work]. Personal ideas used in the work, but personal experiences sometime have the impact. This process is the combination of existing sources, but the result is unique"*, argues an employee.

In the case of MR Consulting, the above mentioned problem does not exist, because there is no common knowledge base, and possibility for stowaway behaviour. The basis of the culture is openness. The HQ is a huge open-plan office, where parts are separated by glass-walls, but except executive there are neither personal offices, nor stable desks or computers. Therefore employees can work surrounded by other persons every day, that supports knowledge sharing, although employees on same project are working together.

Not only the office, but also employees have openness: if an employee has a problem, he is free to ask every other person (even an executive), and surely will receive answer or help. This kind of behaviour, as value deeply embedded in the organisational culture that supports true knowledge sharing. Because of the expansion of the company, a lot of employees are working outside of HQ office, and not often visits at all, that make this personal communication with the required persons hard, even impossible.

3.4.3 Leadership

Executives of the Hungarian department of IT-Consult accept the knowledge management solution, and they are satisfied, and ready to promote it. It is a common belief, that the technological solution solves everything, therefore there is no need of additional heavy management commitment. Although executives encourage employees to use the system, there is no monitoring of use, or transparent support.

Comparing to this passive behaviour, MR Consulting CEO is a very charismatic and very committed person, likewise other executives. Openness and open offices are not only empty phrases for employees, but a living practice. Employees can see this behaviour and they are ready to follow it. Although executives are always ready to help, to provide support, they are also the persons, who resist changes.

3.4.4 Human research management

As at many big, international companies, the fluctuation rate is rather high in IT-Consult, and it is the continuous danger of loosing expertise and required skills. *"This is a sensible problem for our company"*, realised an employee. IT-Consult recruits new employees from universities, mainly fresh graduates with good abilities in learning and adaptation. Employees are developed by group trainings and through e-Learning solutions. The promotion of employees based on hierarchical and self-assessment, but the carrier way is either promotion or leaving the company (up-or-out solution), that provides a very hard internal competition and encumbers cooperation.

People at MR Consulting believe in life-long employment, and the fluctuation rate is lower than at other consulting companies. The organisation is looking for fresh graduates and also for experts. One very important condition of offering a job is the acceptance of the existing organisational culture. Employees are developed continuously by having a more experienced mentor, but also with tailor made trainings. Promotions are based on very detailed 360° appraisal solution, but there is no direct pressure for compulsory advancement. There are very valuable employees, who do not prefer the management carrier way (to become manager or partner), but there is a possibility to have a carrier as experts.

3.4.5 Motivation

Neither of the companies has additional incentive system to motivate their employees to use the available knowledge

management solution. In the case of IT-Consult it is not even part of the performance appraisal, and there is no measurement. The motivation is only the challenging job, honour of society and experience. MR Consulting offers an open culture, in which the basic value is knowledge sharing. Beside this, personal behaviour, and openness and knowledge sharing is measured in performance appraisal, and basis of advancement.

3.5 Performance analysis

Neither of the presented companies have a conscious performance monitoring solution for the knowledge management processes that is a main problem. The miss of process assessment and feedback generates a long-term problem: the solutions can be wrong or can become outdated without control or review. In the case of IT-Consult, the employees realise the problems relating to the KM processes, but there is no direct platform or channel to give feedback. In the case of MR Consulting, the charismatic, but less flexible leader could be a barrier of faster, comprehensive development. Because the presented KM solutions are successful at present, there is no motivation the deeply change the system, and the miss of performance analysis is a long-term problem that will arise years later.

4. Synthesising change and knowledge management

The analysed cases are presenting pure codification and personalisation strategies (table 1). During the development and use their KM solutions, problems were identified at both companies, and harder pressure to change. In fact, problems were not easy to identify, because there was no monitoring and assessment system for KM applied in either companies. Despite of every problem, both companies are absolutely successful in competition, and has good image among customers.

The history of IT-Consult is started with a change: a merger. The merger was a several year long process by integrating the business, organisational and IT systems, customer-base and provided services. This change was initiated at the top, and the highest levels of the merging organisations were committed, and employees also accepted it as an answer to the market pressures. The change continued by the firm wide introducing of the central knowledge management system (knowledge-base). In this case, although the local management was committed, this commitment was not transparent enough to act, and employees were not involved into the introduction process. Even, this solution was centrally developed and the introduction was centrally conducted, therefore employees in the local office did not feel, that this solution belongs to them. The change process of introducing the KM system did not defined new formal terms of employment in any dimensions (cf. Strebel, 1996), therefore employees did not feel high pressure to change, while the only effort was the marketing campaign of the central KM group. Another possible problem was the overlapping changes of merger and introducing company-wide KM. Despite of every problem, employees believe and accept that the existing KM system is good, but they do not see how they can be the part of it, and there are no signs and support to show them.

Table 1: Comparing cases

	IT-Consult	MR-Consulting
KM Strategy	Codification Exploit Internal and external knowledge Pioneer Voluntary	Personalisation → Combined Exploit Internal knowledge Follower Pressured
Organisational issues		
- HRM	High level of fluctuation Selection of fresh graduates with ability of learning E-learning, group trainings “Up-or-out” promotion Hierarchical and self-appraisal	Low level of fluctuation Selection both graduates and experts Personalised internal and external trainings, mentoring Alternative carrier-way for experts 360° appraisal

	IT-Consult	MR-Consulting
- Motivation	No incentives Challenging job, experience, honour of society Not part of performance appraisal	No incentives Motivation by leadership and culture Part of performance appraisal
- Structure	Projects Groups of Industry and Service Matrix	Projects Organisation as a family No formal divisions
- Culture	Knowledge sharing is ”monkey on the shoulder” Workplace relationships	Strong culture – behaviour patterns Knowledge sharing based on openness and trust Off-work relationships
- Leadership	Passive managers	Charismatic CEO, and openness of management
Technological Issues	Intranet Document management	Central directories of HQ office (Competence map)
KM Performance analysis	No	No
Change processes	*Change: introducing company-wide KM* *Wish of better working KM practice* Marketing campaign No new terms of employment Passive management commitment No involvement of employees Overlapping changes	*Change: developing KM practice* External and internal factors to change Initiated by employees Passive opposition of management

The KM practice of MR Consulting was stable for many years. But as the company expanded old solutions became harder to perform: face-to-face communication is hard if the expert of a problem should be searched among over 100 employees, even if most employees are in HQ office only for a few hours a week. Although there was the constant need for knowledge change, the existing system could not provide the same efficiency, as before. MR Consulting was changing, but was not consciously changed. Originally formulated processes and organisational structure is not suitable any more for a bigger company, and employees realised it during their daily activities. Changes initiated in the low level of organisation in order to develop new solutions, but there was no central coordination of these activities, and any initiative was judged separately. One initiative was to develop the internal IT system of the company, and beside the project controlling system the roots of a future expert competence map solution was developed.

MT Consulting had to face stronger competition during recession, and as the company realised the bigger and bigger need to maintain its critical knowledge more effectively, after heavy arguments in the management the organisational structure changed: the technological and management consulting profiles was formally separated, under different management and divisions of services were created. In these organisational forms the formerly less respected experts had a bigger role. The management had to realise, that the half-conscious management of knowledge is not enough any more, further steps are required. The daily use of competence map and the collection and codification of existing internal knowledge started. MR Consulting applied suitable organisational solutions to support personalisation KM strategy. The practice is dominated by an extremely strong and deeply embedded organisational culture. It is questionable, that this culture is able to support another approach, because in the case of codification solutions, there are no direct feedback and honour from colleagues that could be a lowering factor of motivation for knowledge sharing. These changes were mostly conducted by the lower level of organisation, but supporting employee initiatives was already part of the organisation, although it was not common to change the principles of the company.

In both cases there is a strong barrier the lack of using conscious change management in order to support new and changing knowledge management processes. The applied change management solutions are not exactly efficient, there are several barriers in both cases (lack of management support, lack of feedback, lack of employees

involvement, etc). Until now, the presented companies are successful; therefore there is no motivation of deeper changes. The danger of this comfortable behaviour is that the reactive solutions could be more expensive and difficult. In the case of MR Consulting, the firs slowly changes were indicated by external factors, which is already an example of this danger.

5. Conclusions

Both companies had very characteristic KM approach. Either of the companies concentrated mostly on one side of the presented framework (figure 1), while neglected the investment of the other side of the model. IT-Consult has a very strong codification strategy, and realised it by using a well developed IT solution. Unfortunately there was no focus on organisational issues. MR Consulting is almost the inverse: although the personalisation approach of managing knowledge was only half-conscious, the supporting organisational solutions were almost perfect: knowledge sharing culture, open leadership, good HR politic and motivated employees.

In order to remain competitive and to have a more efficient (or at least suitable) KM practice, it seems that both companies need higher emphasis on the other side of the model. These enablers are able to support other solutions. The expansion of KM enablers is a change process and it is focusing on the less used side of the model, which could have the risk of neglecting the already good working solutions. At the time of the research, both companies were successful, therefore the applied KM strategies were successful, but there are hidden problems in the working of KM practice, that were explores in this research, and that could endanger the long term efficiency.

5.1 Review of research framework related to cases

Hansen et al (1999) argued for the compulsory option of codification and personalisation strategies. These cases present that it is easier to start a KM practice by using only one strategy and focusing on one side of the research framework, while it is hard and risky to involve the alternative approach. The cases also present that neglecting other solutions, or only just neglecting the other side of the model is not suitable for long-term.

Using the codification approach means emphasis on technological solutions, but as the experience of socio-technical systems presented, organisational factors are also important. IT-Consult needs to concentrate on organisational solutions (culture, behaviour, HRM) in order to support existing practice that can lead to stronger communication and cooperation between employees, which are the roots of personalisation approach. Using the personalisation approach means emphasis on organisational solutions, especially personal communication, culture and trust, but technological solutions can even support this strategy, e.g. by using knowledge maps. MR Consulting needs to develop IT solutions in order to support geographically dispersed employees, which are unable to communicate in an effective way. It is clear, that the rule of socio-technical system is true in these cases: even if a company concentrates on technological solutions, it has to create the organisational background of the usability.

5.1.1 Assessment

The different enablers in the research framework are usable to analyse different cases, in order to compare them, how these enablers have been used, and what is their impact. The presented two cases allowed to understand and deeply explored the working of these enablers, as required in an explanatory research.

There are also several problems in the change management practice of organisations. First of all, neglecting the principles of change management: managers are not committed, not really leaders of changes, not involving employees. Leadership and cultural change are basic factors of change processes that are also basic enablers of KM activities. Without good change management, there are also problems with knowledge management activities: factors, that are important to change the organisation, later are required to support KM activities.

In the presented cases, companies have successfully developed their initial knowledge management program, those were successful for several years.

However it has to be realised that old solutions are not last forever, and without the help of conscious change management, these achievements could be lost.
Companies have to be prepared to change the already deeply embedded solutions, that can be another problem factor. Heavy concentration on one solution makes almost impossible to open for another approach, and by expanding the KM approach (and practice) employees will not retain old solutions, but instead replace them with the new one. Organisations, which are open to other approaches, and which are developing their own practice in order to be able to expand it, have more possibilities to a successful change of their KM practice.

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