EXPLORING THE VALUE OF ENTERPRISE WIKIS
A Multiple-Case Study

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Abstract: We present the results of our explorative multiple-case study investigating concept, implementation and utilization of internal wikis in three Austrian enterprises. We collected all data during structured interviews with internal knowledge management experts responsible for the wiki implementation and from online surveys of non-executives employees being users. Our contribution was highly motivated from the continuing discussion on Corporate Web 2.0 and Enterprise 2.0 and unfortunately, the lack of well-grounded empirical studies by contrast. We feel that challenges and benefits of Web 2.0 technologies and applications for the enterprise are just starting to be systematically explored.

1 INTRODUCTION

Weblogs, wikis and social media platforms are very successful on the web. Including Wikipedia, Facebook, MySpace and many more, they formed participative environments, allowing everybody to easily create, share and modify content with very limited technical expertise. Suchlike Web-2.0-platforms steadily lowered the barrier to share knowledge on the web and account for rich sources for knowledge acquisition.

Motivated from their observations on knowledge sharing on the web, enterprises slowly begin to acknowledge the value of Web 2.0 principles and technologies. The adoption of Web 2.0 was supposed to lead to manifold business advantages for various application domains. The ability of Web 2.0 most notably wikis and weblogs, supporting both corporate knowledge workers and their practices, had even been awarded with another buzz-word – Enterprise 2.0 (McAfee, 2006). While weblogs may serve as a new media for corporate communication (Kosonen et.al, 2007), wikis illustrate lightweight web based authoring tools supporting collaborative content creation in the enterprise.

Cunningham (Cunningham, 2001) defined a wiki as 'a freely expandable collection of interlinked web pages, a hypertext system for storing and modifying information [and] a database, where each page is easily edited by any user'. The phenomenal growth of Wikipedia in users and content inspired many organisations to experiment with wiki-communities. Unfortunately, our literature review showed that very few had been reported about the concrete use of wikis in the enterprise, yet. The International Symposium on Wikis (WikiSym) published just one paper on corporate wikis (Majchrzak et.al, 2006) in its five years history.

We reviewed the following papers presenting empirical studies on corporate wikis: Danis and Singer (Danis and Singer, 2008) conducted a longitudinal study of a wiki-based application deployed in a 900 member research organization. They found out that wiki-articles resulted in a greater transparency but as a technology the wiki not always provided fully appropriate affordances. Hasan and Pfaff (Hasan and Pfaff, 2007) investigated a single case of wiki-rejection, thereby discussing challenges and opportunities when adopting a wiki to manage corporate knowledge. Management concerns dealt with flattening of organizational hierarchies and the too innovative wiki approach towards knowledge acquisition versus their familiar centralized approach. Social concerns dealt with openness to vandalism, missing recognition for authorship and the poor quality assurance of wiki information. Surveying 168 corporate wiki users from different enterprises, Majchrzak, Wagner and Yates (Majchrzak et.al, 2006) found out that enterprise wikis enhanced reputation, made work easier and helped the organization to improve its processes. Wikis

particularly helped their organizations to improve workflows, increased collaboration efficiency and knowledge reuse and identified new business opportunities. Farell, Kellogg and Thomas (Farell et.al, 2008) studied the use of wikis within IBM, requesting all IBM wiki owners to describe their benefits. They found out that wikis were primarily used as collaboration spaces for teams but also to support small ad-hoc groups as well as large communities and collectives. McAfee (McAfee, 2006) investigated the use of wikis in the investment bank Dresdner Kleinwort Wasserstein, furthermore discussing the ability of wikis (portals) to replace email (channels) for certain issues, reducing information overload.

2 RESEARCH DESIGN

2.1 A Multiple-case Study Approach

The corporate adoption of Wikis has rarely been analyzed in academic literature and benefits from intraorganizational wikis are just starting to be explored. We still do not fully understand process, context and the specific phenomena to be observed when wikis are used (Danis and Singer, 2008). This particular circumstance allows multiple-case studies to be very fruitful (Eisenhardt, 1989), (Miles and Hubermann, 1984) when aiming at the discovery of novel constructs to achieve theoretical advances.

Table 1: Key figures of investigated cases.

	Alpha	Beta	Gamma
Industry	Micro-electronics	Engineering Services	IT-Services
Number of employees	2900	250	750
Analyzed business unit	Support Department	Whole Enterprise	Whole Enterprise
Potential Wiki users	200	250	750
Estimated Wiki users	70	180	100
Years installed	1,5	2	2
Wiki purpose	(Technical) Support	Technology, Workflows	Knowledge Base
Wiki target group	Support, R&D	All	All

We therefore built upon a multiple-case study of three Austrian enterprises, adopting wikis to facilitate intra organizational knowledge transfer. All three investigated enterprises operated in different environments, which may affect the conducted study in various ways. Identifying

common patterns and differences across cases is the aim of our paper. Table 1 summarizes their main characteristics of the three case companies – Alpha, Beta and Gamma which had completed the roll out of their wiki to at least one and a half years before the start of our research.

To understand the full context that is *how* and *why* benefits from the implemented wikis had been gained and *which*, our paper must provide sufficient information about the context, i.e. the starting point for the wiki, its implementation phase and the perceived value gain.

2.2 Data Collection and Analysis

Our study uses both quantitative and qualitative data in order to create a valid study following the requirements of the respective literature (Eisenhardt, 1989) enabling triangulation of evidence. We diligently applied two data collection techniques:

Conducting structured interviews with internal wiki experts in the first step, we asked them 40 questions about the degree of organizational suffering requesting a new solution, their implementation strategy and their perceived impact for individuals and organization, as differentiated in the (first) Delone and McLean model for information systems success (Delone and McLean, 2003). The interviews lasted between two and three hours, each. We documented our qualitative empirical results in three reports sent to our interviewees to comment upon and ensure all details to be interpreted correctly, ensuring construct validity (Yin, 1984).

Responding to the request from academic literature on knowledge management (Han and Vittal, 2006), we also emphasized on knowledge sharing from a non-executive employee's perspective. We therefore surveyed ~150 non-executive employees being regular knowledge workers (Drucker, 1959), utilizing wikis in their daily business in a second step. Our online questionnaire included 17 questions on reading and writing behaviour, (knowledge) work practices, motivation for reading and editing articles, and perceived benefits and obstacles. In one case of very low wiki usage, we requested additional information from non-wiki users. Analysing the quantitative data collected, we compiled three 20-25 pages reports aimed to guide executive employees in deriving better strategies to optimize their wiki utilization.
Summarized, we wanted to find our, *how* and *why* enterprises used a wiki and with *what* results. We therefore outlined the following guiding research questions for our study:

- How do enterprises use wikis to support employees in their daily business?
- Which motivation drives corporate knowledge workers to utilize wikis?
- What values are generated for individuals and the organization?
- Which success factors determine effective and efficient wiki-projects?

Each of these questions was analyzed highlighting the variety of answers across the cases.

3 MULTIPLE-CASE-STUDY

3.1 Qualitative Results

3.1.1 Case Alpha

We explored the Austrian subsidiary of a large-scale multinational enterprise, developing highly innovative technical parts for automotive industry and industrial electronics. We probed an internal Wiki-based solution implemented by the local support department, henceforth called SD. This solution was aimed to foster knowledge transfer within SD and beyond on the entire site, employing about 200 employees mainly occupied with research and development.

Starting Point. Because of the high degree of innovation of the conducted research, secrecy was the utmost principle. Hence researchers operating in different project teams were separated from each other by entrance restrictions. SD supported researchers and developers by providing guidance in all technical and methodical issues. Each department member was respectively responsible for a whole group of researchers. Due to the decentralized working environments, knowledge transfer within SD was suboptimal: Internal face-to-face meetings were limited, yielding to heavy email-traffic and continuous reinventions of the wheel.

An electronic database was considered to raise efficiency and effectiveness of SD's core responsibilities. The goal was to facilitate knowledge transfer within SD and to raise the interconnectedness between department members. A wiki should help to collect and document support relevant knowledge and transfer it to all relevant knowledge seekers.

SD's manager expected the wiki as the most suitable platform for knowledge transfer, referring to wiki-typical simplicity, perceived acceptance as observed from Wikipedia, special functionality of wikis, platform independence, and first and foremost the well-known wiki-principles, allowing every person to read and quickly edit articles at the same time. MediaWiki was favoured as Wiki-Software, because of its high degree of popularity and its proof of scalability.

Wiki-introduction. The Wiki was introduced top-down by SD's manager, who directly reported to the local site manager who gave the project the necessary commitment.

Respective MediaWiki-knowledge was available at the local site and no formal requirement engineering process was run trough. However first properties and structures had been eagerly discussed within internal group meetings, but no strict definitions arose. The creation of wiki articles was supposed to happen bottom-up. A strong involvement of SD in content creation should to lead to a lively Wiki. To assure immediate adoption, some relevant content was also migrated from another repository.

Although the Wiki was based upon the requirements of SD, all employees at the local site were able to both read and edit Wiki-pages. Wiki-users had to be logged in by providing their real names, anonymous editing was strictly forbidden, and only administrators were explicitly allowed to delete Wiki-pages.

A series of actions had been taken to raise both awareness and acceptance. The wiki was officially introduced within an SD jour-fixe. Furthermore, SD's manager personally introduced the wiki and its goals and forecasted benefits in all other local departments. Relevant employees and opinion leaders were personally invited to actively participate and stimulate others.

The Wiki allowed access to articles on tool-specific and methodical support for all in research and development. With the knowledge provided by the wiki, researchers and developers were able to focus their creative potential on the design of products. Applying wiki-knowledge, they could learn how to transform a quick idea into a commercial product.

Wiki-knowledge was organized by tasks and topics. Categories were used for meta-description and structuring of articles. However, when documenting knowledge, employees should avoid building too hierarchical structures. Such structures were supposed to increase complexity. An enterprise-wide roll out of the wiki as a global support tool was cancelled, fearing the increase of complexity and information overload.

Results after 1,5 years of Wiki Adoption. Approximately 500 wiki-articles, periodically utilized by around 70 local employees, 15 of them

highly involved in editing, had been created in one and a half years. Based upon a current server-log, the wiki had been accessed about 130.000 times since its roll-out and wiki articles had been edited about 10.000 times. These numbers signalize a very lively wiki.

The wiki was primarily intended to stimulate and foster knowledge transfer between SD members, but it soon became clear that even researchers themselves could benefit much from action. So far they were mainly supported via face-to-face meetings, telephone-calls and emails by SD. As one SD member had always been personally present within a group of researchers and developers, researchers and developers hesitated in active wiki-participation. From an individual perspective, it became more effective to directly request guidance from SD, than to retrieve specific information from the wiki. While it was well known that researchers and developers always shared their knowledge on personal request, they lacked motivation to make their knowledge explicit in electronic databases. Researchers even requested SD members to document ideas on behalf of them, stated doubts including "usage is very time-consuming", "the wiki is too complicated", "I am too lazy", "I can directly ask SD", or "I lack time". The degree of raising ones social or professional reputation by editing wiki-articles was perceived to be very low.

One important individual value gained from the wiki was the simple and easy to use full-text search, allowing quick guidance for emerging problems. Second, wiki articles incorporated formulations of both problems and their solutions on a very basic – easy to understand – level, which was adequate to the special needs of researchers. Another benefit dealt with the satisfying level of transparency gained on support knowledge and respective knowledge barriers.

As a web-based solution the wiki ensured easy access without any special authorizations. However, the most important organizational value from the wiki was the rise of efficiency and effectiveness in SD's core business, providing tool-specific and methodological support for researchers and developers.

The following success-factors had been explicitly named by the interviewees:

- A sufficient number of wiki-articles must exist right from start for employees to perceive and accept the wiki as their useful knowledge base.
- The roll-out of the wiki must occur on a broad user base, requiring a handful convinced users who stimulate others in personal face-to-face talks.

- The 'built-in' simplicity of wikis rather a minimum requirement than a success factor.

3.1.2 Case Beta

We explored the Austrian subsidiary of a world-wide engineering group employing about 250 persons delivering manifold engineering services. We probed an internal wiki conceptualized and implemented by a two person core-team responsible for knowledge management. The new solution was intended to support most notably technical project staff in knowledge documentation and learning within their periodic phases of low workload. Furthermore it should provide a central base for knowledge about processes relevant for the administrative staff.

Starting Point. As the company was lacking an editorial intranet, documents and templates were mainly stored in complex hierarchical folders on file-system level or not accessible at all within a central database. These aspects limited the ability of employees to document and share their project-specific technical knowledge.

In daily business, technical employees periodically returned to the headquarters from customer projects, using phases of low workload to prepare for upcoming projects. Prior to the wiki implementation, a lot of knowledge flew through the enterprise and not being absorbed by organizational or technical knowledge management measures. Furthermore, the management required a proper solution for documenting administrative processes within an electronic database to support the administrative staff.

A former manager was able to observe a successful wiki-implementation at a customer's site, aiming to document and share technical knowledge in a simple and effective way in analogy to Wikipedia. Reflecting on his own enterprise, he found a suchlike tool very advantageous for project staff to explicate, codify and share their knowledge. Such a wiki would enable technical project-staff to grow a knowledge base for all project relevant technical knowledge.

Based upon this initial situation, the main goal of the introduced wiki was to document all technical knowledge emerging from external projects or elsewhere perceived to be useful for further projects. Second, the wiki should be designed to document all process relevant knowledge to support the administrative staff, too.

Wiki-introduction. Perspective (www.high-beyond .com) was chosen as wiki-software: Simple

WYSIWYG ('what you see is what you get') editing of pages, integrated file-system and document search, improved support of attachments, and active directory integration served as the main reasons.

While the implementation of the wiki had followed a top-down strategy driven by a department manager, the creation of articles was aimed to result bottom up. The wiki was divided into two sections: The first section was dedicated to represent the knowledge of the technical staff – based on an enterprise-wide saying that 'all technical and organizational knowledge unable to be found via google in less than two minutes' should be documented in the wiki. The second section dealt with administrative issues and covered all various forms, templates and process descriptions. All wiki-users were automatically logged in with their real names, not allowing any anonymous editing.

The wiki had been implemented without external help by the two person wiki core-team, consisting of a technician and a sales representative. First wiki-structures and properties had been conceptualized in lively discussions with employees from various departments. While the core team was manually editing quite a number of wiki articles for administrative staff only marginal content was collected to support technicians.

Results after 2 Years of Wiki Adoption. From the perspective of our interviewees the wiki served as the appropriate solution for knowledge transfer, documentation and sharing, if properly targeted. All 250 employees in the enterprise were able to both read and edit most of the wiki articles. Though, some sections, including administrative and project spaces, had access restrictions.

About 180 employees utilized the knowledge provided in the technical section, consisting of about 500 wiki-articles incorporating two gigabyte of text and 20 gigabyte of videos. However, only 15-20 employees coming from projects were able to use the wiki at the same time, i.e. document and share technical knowledge within the wiki, as access from customer sites was not supported. From studying wiki-log-files the enterprise furthermore learned that on an average 15 wiki-articles were updated daily. Overall 20 technicians very intensively created wiki-articles assuring a lively wiki with up-to-date knowledge.

The technical section had been strongly co-developed by the staff: In the beginning, some of them documented articles on a particular topic or technology having a private interest. But they soon realized the potential value of making their private knowledge professionally useable. Henceforth the wiki reflected all technical competencies of the enterprise: Project managers were able to accurately acquire their project-staff based on an author-content relationship. It should also be noted that editorial efforts in the technical section were minimal, only dealing with the reassignment of articles to certain wiki-categories.

Unfortunately, the administrative section was the problem child. Although intensive internal marketing activities had been conducted, the administrative staff hesitated to use the wiki and refused to update wiki articles. Most of the non-technical articles had been created by a former wiki core-team member, who left the enterprise. After his exit the up-to-datedness of wiki articles continuously declined, now rendering most of them useless.

Observing obstacles and barriers for wiki utilization, the core-team found out that technical staff was much more willing to 'suffer' from the additional work load triggered by the wiki. Non technical staff always complained about its lower comfort compared to their well-known office tools. Technical staff perceived a higher value gain, most notably because of the faster and more structured access to project relevant technical knowledge. Articles within the technical section allowed not only access to textual content but also to (software) tools located on file-system level. On an organizational level, the wiki simplified collaboration amongst (technical) employees. Technical staff also managed to use their idle capacities to transfer knowledge.

A huge obstacle accompanying wiki adoption was the fact that employees only recognized its value after having intensively used it. Unfortunately, communicating this special aspect of social software to employees is extremely challenging. A successful adoption of portals, like a wiki, must always be accompanied by a change in employee behaviour. To achieve this, much management attention is required: Putting a 'gentle pressure' on employees will facilitate the emergence of effective wiki practices.

The following success-factors had been explicitly named by the interviewees:

- Wikis require a dedicated and very optimistic core team in charge of all activities having reasonable time.
- Wikis require a corporate culture privileging open communication
- Management commitment and management attention are a must have, a company wide wiki may not be the initiative of a single person or department.
- Future wiki-users have to be integrated into conception and implementation from the start.

3.1.3 Case Gamma

We explored a major Austrian IT service provider employing more than 750 people. We probed an internal wiki intended to serve as an electronic knowledge base in analogy to Wikipedia. The new solution was aimed to support everybody by providing stable, long-term knowledge, periodically required by employees.

Starting Point. Since the foundation of the company a plethora of internal databases partly containing redundant knowledge had emerged. Hence opinions were voiced demanding a more centralized environment. A 10 persons group responsible for knowledge management bear the idea to deploy a knowledge management tool based on user generated content. The group was very much attracted by the wiki-principles, which allowed everybody to contribute to a central platform in a self organized way. They perceived Wikipedia as the archetype of a corporate wiki.

The aim of the introduced wiki was to develop a centralized electronic knowledge base involving all employees in content creation. This to develop company-wide encyclopaedia was designed to contain a precisely defined set on topics and articles as well as most prevalent abbreviations and short terms for products and services used in daily business. Such knowledge was not available in a centralized platform yet. Besides, the wiki should only contain long-term knowledge. Such wiki-knowledge was intended to be accessed without any restricitions.

Wiki-introduction. The wiki had been introduced two years ago without external consultancy. However, some implementation support was provided by an affiliate company. JSP-wiki (www.jspwiki.org) was chosen as wiki-software, as expert knowledge was available. The wiki project team consisted of four selected members of the group responsible for knowledge management. The project team designed first wiki-structures and edited some content. Intranet articles, flyers and news tickers were disseminated to facilitate the acceptance of the wiki. The wiki project was also formally approved by the company management.

The wiki-group very strictly defined, which knowledge was allowed to flow into the wiki: basic information on customers, projects, technology, expertise as well as information about the enterprise and the knowledge management group. The wiki contained glossaries, frequently used terms, project-names and explanations, descriptions of the departments, customer names and abbreviations.

Meeting minutes, project relevant knowledge, knowledge related to interpersonal communication, news and specific reports were not intended to be part of the wiki as parallelisms of the wiki to the existing editorial intranet had to be avoided.

Results after Two Years of Wiki Adoption. The majority of the targeted employees still hesitate to use the wiki: 10 employees most notably managers as well as members of the knowledge management group take frequently use of it. A second group, larger in number, still perceived the wiki as a valuable tool but reflected that adopting such a tool affords a lot of voluntariness being the obstacle for a broader wiki-adoption. Therefore, they rarely edited and only sporadically read wiki-articles. The largest group of employees did not use the wiki at all.

The project-staff responsible for the wiki introduction conceptualized the wiki as a fast-selling- item. But after two years of wiki adoption they learned that the majority of employees lacked confidence in operating such a tool. However, surveying non-wiki users, we found that there are far more aspects slowing down the wiki success: Most of the wiki articles are merely relevant for the daily work assignments. Answering employees did not perceive an added value from the wiki. Furthermore, the aim of the wiki was perceived to be too broad and should be narrowed down.

Though wiki-users perceived wiki articles as being helpful in their daily business, many of them hardly used the wiki. They stumbled upon its very challenging handling, most notably the uncomfortable editor and the complicated wiki-syntax. On an organizational level, the wiki increased the transparency on knowledge. Collecting and documenting information seemed to work fine from the perspective of the wiki group. However, only few articles had been collaboratively edited, numerous wiki-revisions were only to be found on the main pages.

Though the corporate culture was perceived to be very participative, employees sensed many obstacles to edit wiki content, most notably because of their lacking anonymity. Some employees had problems to understand the wiki-structure when trying to publish articles.

The following success-factors had been explicitly named by the interviewees:

- It is crucial for wiki-success to acquire first-movers motivating others to participate.
- Wikis have to be rolled out with articles to motivate employees to participate.
- Though being social software, wikis require very intensive internal marketing activities.

Table 2: Overview of cases studies.

	Case Alpha	Case Beta	Case Gamma
Status quo	Lacking knowledge transfer in R&D support department	Lacking knowledge documentation and learning	Certain knowledge was not available in centralized base
Wiki goal	Centralized and lively knowledge base support	Document and share technical and administrative knowledge	Develop a centralized electronic knowledge base
Introduction	Support Wiki (*MediaWiki*)	Wiki for technical and administrative staff (*Perspective*)	Wiki for all employees (*JSP-Wiki*)
Results	Raised efficiency and effectiveness of support Simpler search and retrieval of problem descriptions	Facilitated technical knowledge sharing Better exploitation of phases of low workload	Improved collection and documentation of information
Named Success Factors	Provide sufficient wiki-articles right from start Roll-out wikis on broad employee basis Acquire convinced users who motivate others	Dedicated and optimistic wiki-team having reasonable time Corporate culture privileging open communication Management commitment and attention	Acquire first-movers motivating others to participate Roll-out with sufficient wiki-articles Perform intensive internal marketing activities

- Wiki users have to perceive the value of a wiki right on from the start.

3.2 Quantitative Results

Surveying altogether 150 non-executive employees from our three cases, we were able to validate results from the conducted expert-interviews. In this section, we present selected results on reading and writing behaviour, type and frequency of wiki-contribution, business-relevant information sources, rationale to read and edit articles, individual and collective impact, and perceived obstacles of wiki adoption.

Knowledge about **reading and writing behaviour** allows measuring the success of wiki implementations. Although the knowledge sharing dilemma (Cabrera and Cabrera, 2002) could be overcome on the web, mainly due to the manifold number of potential knowledge sharers, our study revealed that situation in companies is still different: Reading behaviour clearly differs across cases, but the relationship between reading and editing wiki-articles is quite similar: Only a very small fraction of employees counted for regular edits. We interpret observed differences in wiki usage by referring on the different nature of our three cases. While *Alpha* and *Beta* demonstrated more precisely defined business-cases, clearly stating goal, context, target groups and expected impact for users and collective, *Gamma* remains much more ambiguous as especially our survey of wiki deniers revealed.

The **lower editing** behaviour in *Alpha* as compared to *Beta* can be explained by the precisely defined, but lower in size, target group responsible for wiki articles in *Alpha*. The strength of *Beta* was the successful development of a lively enterprise wide wiki: The high affinity of wiki users, most notably technicians, seemed to stimulate regular reading and editing practices.

Surveying on **type and frequency of wiki-contributions**, we found out that minor edits of existing articles and creation of new articles prevail. Correcting grammar and spelling, reverting articles using the revision history, restructuring articles and commenting articles were clearly outnumbered.

Surveying on enterprise-wide **sources of information relevant to daily business**, non-executive employees of *Alpha* and *Beta* clearer perceived the wiki counting to them. In *Gamma*, wiki-information seemed to bypass the demands of information seekers. Interestingly, employees of *Beta* seemed to prefer archives and portals including web, document-management and file-server towards channels, including telephone, email and face-to-face conversations. In *Alpha* and *Gamma* traditional media prevailed as sources for business-relevant information.

Finding relevant information, facilitating one's individual work and observing what is happening within the enterprise accounted for the main reasons to use the wiki. To actively counteract email- and face-to-face-meeting overloads hardly stimulated wiki usage. However, such aspects were considered to come along with enterprise wikis in the literature (McAfee, 2006). Furthermore and contrary to the literature (McAfee, 2006) private issues seemed to play a minor role in all three cases.

The main **motives** for non-executive employees to actively **participate** in article creation were a perceived value of their own wiki-contributions, the expectation of individual benefits from the wiki and the stimulation of colleagues to actively participate in content creation. As already known from the classical knowledge management literature (Davenport and Prusack, 1998), reciprocity seemed to play a very crucial role along with wiki knowledge sharing.

Surveyed on the **individual value gained** from wiki usage, non-executive employees in *Alpha* and *Beta* perceived the wiki had in some extent helped them to perform business tasks quicker, finally facilitating their knowledge work. However, to a much lesser extent, they were able to raise their social and professional states. *Gamma's* Non-executive employees seemed to be quite less supported by the wiki.

Surveyed on the **collective value** for team and/or organization **gained** from the wiki, employees noticed an improvement of knowledge transfer and a boost in work performance in *Alpha* and *Beta*. In *Beta* the wiki also led to improved collaboration. The Wiki in *Gamma* seemed to generate only marginal advantages for the organization.

Surveyed on **perceived obstacles** of successful wiki adoptions employees identified few employees creating articles, few created articles, unequal write access, and time consuming editing and retrieval of knowledge to belong to those. Interestingly, conflicts between wiki editors regarding the content of an article, and the transparency wikis entailed, were not considered to be major obstacles.

4 CONCLUSIONS

Investigating three different cases of enterprise wikis enabled us to gain many findings. Taking a closer look at the business perspective, our studies revealed that enterprises have difficulties to map their business goals towards the goals of their wikis. Though enterprises may easily understand manifold original benefits coming along with wikis as new knowledge transfer tools, they often fail to generate a concrete value. There is still a large gap between the knowledge management/transfer view and the business view, which has to be overcome in order to fully exploit the potential wikis bear.

We hold that corporate wikis have to solve a clearly specified problem situation which is crucial to the core business and relevant for the work practices of employees. Without taking a clear business perspective, enterprises are limited to reason on a knowledge management level, especially when surveyed on goals and benefits. Therefore they will highlight soft benefits including generation of transparency on knowledge or the deployment of a central and easily accessible knowledge base. However, it must be the utmost principle to precisely understand *that* there is a business problem, *which* has to be tackled before implementing a wiki. Our future work will aim to concretise differences between the business view and the knowledge view and suggest measures to overcome this gap.

REFERENCES

Cabrera, A.; Cabrera E.: Knowledge Sharing Dilemmas. In: *Organization Studies*, Vol.23, No.5, pp.687-710, 2002.

Leuf, B.; Cunningham, W.: The Wiki Way – Quick Collaboration on the Web, Addison-Wesley, New York, 2001.

Danis, C.; Singer, D.: A Wiki Instance in the Enterprise: Opportunities, Concerns and Reality. In Proceedings of the ACM 2008 Conference on Computer Supported Cooperative Work, San Diego, USA, 2008.

DeLone, W.; E. McLean, E: Information Systems Success: The Quest for the Dependent Variable. *Information Systems Research, 3(1), 1992, pp. 60–95*, 1992.

Davenport, T.; Prusak, L.: Working Knowledge: How Organizations Manage What They Know, Cambridge, MA, Harvard Business School Press, 1998.

Drucker, P.: Landmarks of Tomorrow: A report on the new 'post-modern' world, New York, Harper and Row, 1959.

Eisenhardt, K.: Building Theories from Case Study Research. In: *Acedemy of Management Review*, Vol. 14, No., 4, 532-550, 1989.

Farrell, R.; Kellogg, W. Thoma, J.: The Participatory Web and the Socially Resilient Enterprise, IBM T.J. Watson Research Center, *Proceedings of CSCW*, 2008.

Brent, H.; Anantatmula, V.: Knowledge Management in IT Organizations From Employee's Perspective. In: *Proceedings of the 39th International Conference on System Sciences*, Hawaii, 2006.

Kosonen, M.; Henttonen, K.; Ellonen, H.-K.: Weblogs and internal communication in a corporate environment: a case from the ICT industry, in: *International Journal of Knowledge and Learning, Volume 3, Number 4-5 / 2007, 437 – 449.*

Majchrzak, A.; Wagner, C.; Yates, D.: Corporate Wiki Users: Results of a Survey, in: *Proceedings of the 2006 International Symposium on Wikis*, 2006.

McAfee, A.: Enterprise 2.0: The Dawn of Emergent Collaboration. In: *MITSloan Management Review*, 2006.

Miles, M. B.; Hubermann A.M.: Qualitative data analysis: A sourcebook of new methods, California, Sage Publications, 1984.

Yin, Robert: Case study research: design and methods, Sage Publications, 2003.