3.3 User Research Knowledge Management Experiences and Needs

The following section shows the results of a survey with 66 attendees of different levels of knowledge in the area of knowledge management. The survey consists of four parts:

- Profile of attendee – used to weight the response in relation to the attendees' personal situations and level of knowledge and experiences.
- Evaluation of a knowledge management system provided by the company the attendee works in. This part is dropped if the attendee has no access to a knowledge management system.
- Requirements for a hypothetical knowledge management system.
- Personal comments (free text).

3.3.1 Profile of Attendees

Most attendees do not work with knowledge management systems, only 21% have access to a KMS provided by their company (see Figure 3.3-1).

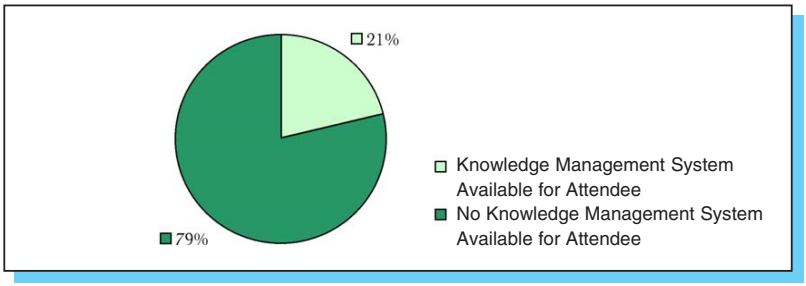

Figure 3.3-1 Percentage of Attendees with Access to a Knowledge Management System

41% of the attendees were female and 59% male. The mixture of age-groups is shown in Figure 3.3-2. The class of experiences of the attendees is divided in four aggregated groups (shown in Figure 3.3-3) classifying the level of attendees between:

- apprentice / industry placement
- student

- beginner / trainee
- expert for at least one topic
- project manager
- manager
- board member / owner of company
- others (free text)

A large amount of attending students explained the high percentage of young and inexperienced attendees. However, the percentage of attended experts balances the results. Aspects of the survey that are examined separated for students and other attendees show nearly the same results; in light of this the results shown here are not separated.

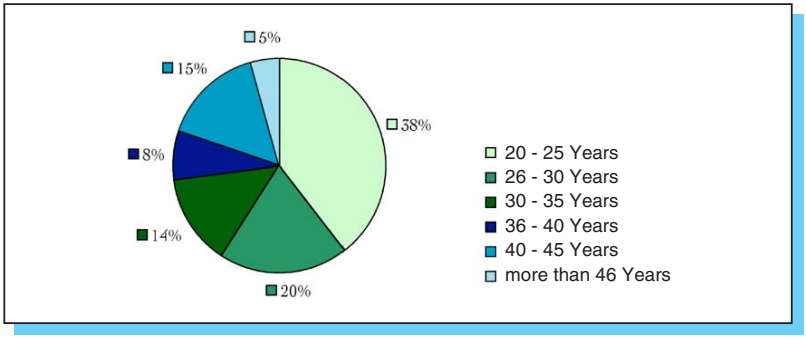

Figure 3.3-2 Age of Attendees

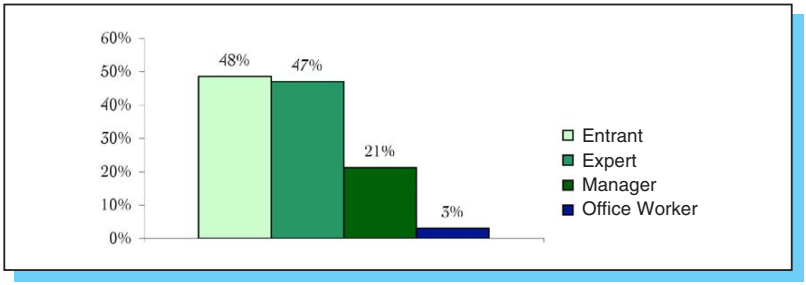

Figure 3.3-3 Class of Experiences of Attendees

3.3.2 Evaluation of a Used Knowledge Management System

A rating of the used KMS with the choice of excellent, good, average, below average and unsatisfactory is illustrated in Figure 3.3-4. Since this part of the survey focuses on experienced users of KMS (most students have no access to a KMS) expressive statements are expected. The results show that knowledge is organised insufficiently in most companies; 62% of the attendees were dissatisfied with their used KMS and rate it as “average” or “below average”. This shows the possible potential of enhancement by technical and organisational innovations. No one rated “unsatisfactory” – this might be explained with the fact that using any kind of KMS is better than nothing.

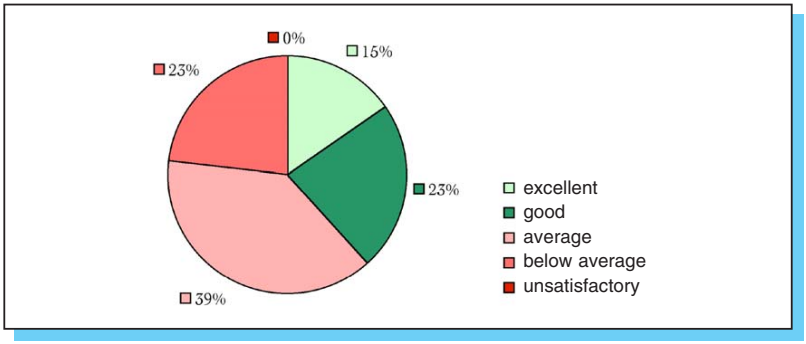

Figure 3.3-4 Satisfaction with Used Knowledge Management System

The result of the question whether an attendee used the KMS is illustrated in Figure 3.3-5. 29% do not use the KMS and 14% use it but not willingly. This means that a huge amount of the company knowledge is not included in the KMS or only in poor quality. Altogether 43% of the company’s potential knowledge is organised inadequately.

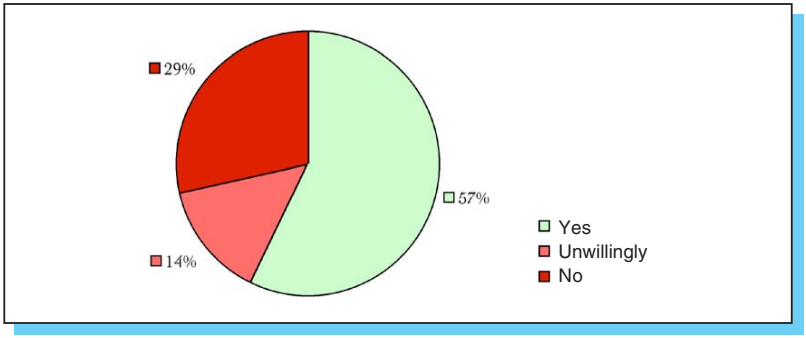

Figure 3.3-5 Use of Knowledge Management System

Figure 3.3-6 illustrates why the attendees did not use the KMS. More than one answer was permitted – this is the reason for more than 100% altogether.

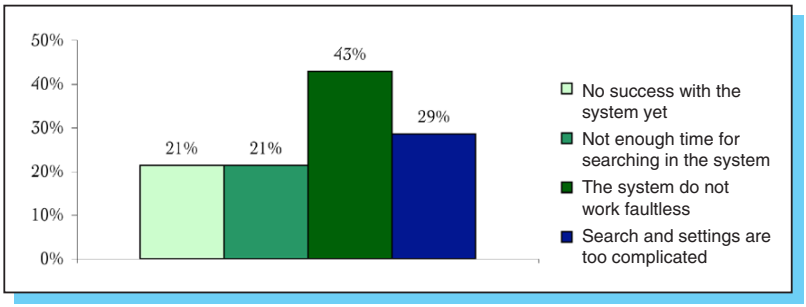

Figure 3.3-6 Reasons Why Users do not Use the Knowledge Management System

3.3.3 Requirements for a Hypothetical Knowledge Management System

The participants were asked how long they need to find relevant information to solve a complex problem. Then they were asked how long it would take to solve the same problem, if they could ask an expert. Figure 3.3-7 illustrates that a user would save around one hour and thirty minutes on average if they could ask an expert. This required two-thirds of the time, which is necessary to solve the problem by finding information. A business would effectively save is around 38 minutes. (The time for solving a problem by asking an expert has to be duplicated, because two people are working on

the task.) That is a quarter of the time for finding the relevant information.

This shows that companies would save a quarter of the time if their employees could ask internal experts for help. Frequently the person, who asks, works under strain, and the expert, who answers, will have some time left. In this situation the value of the time of the employee asking the question is greater than the value of the expert's time, because continuous work on the project can be assured.

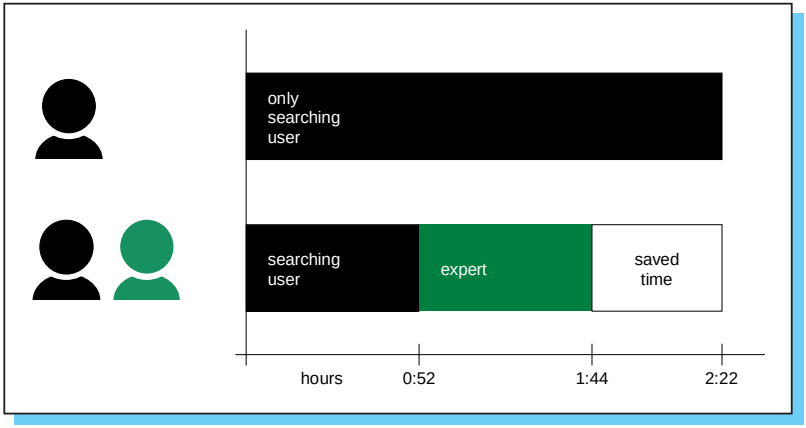

Figure 3.3-7 Analysis of the Question "How long will it take to find an answer by …?"

Additionally the participants were asked how they might proceed if they need an answer. In answering this question they should sort the various suggestions in order of what they would do.

The result illustrated in Figure 3.3-8 demonstrates that people would initially ask their relatives in the company (team members and colleagues). After this they would search on the Internet and then they would ask an internal expert. This endorsed our assumption that employees would ask another person first. If there is no relative

available, they try to find the right information on the Internet. If this proves impossible, they would ask someone within the company. This shows that people would rather communicate than search to solve a problem.

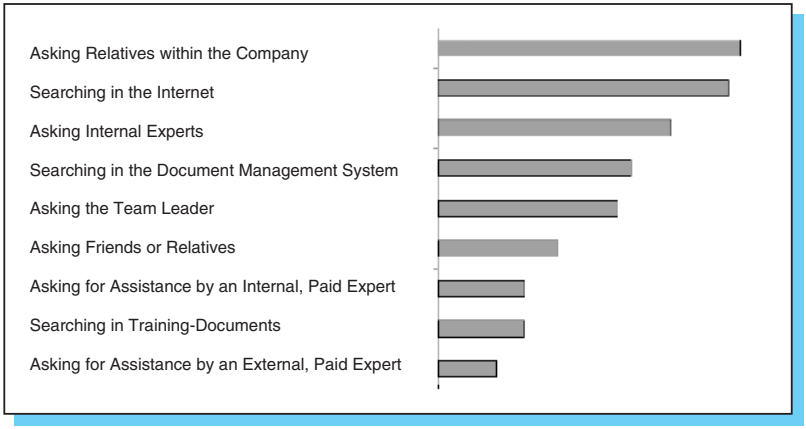

Figure 3.3-8 Order of Actions an Employee Will Take to Solve a Problem

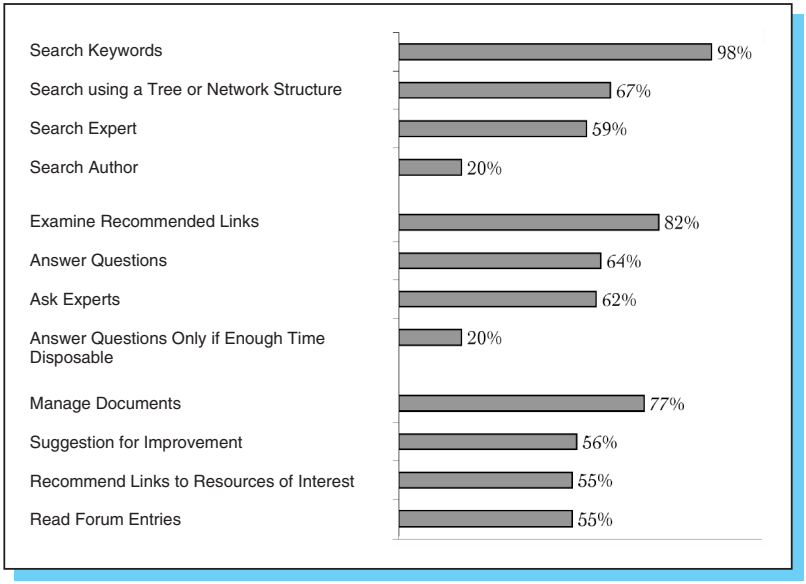

Figure 3.3-9 Valuation of Functionality of a Hypothetical Knowledge Management System

Functions or methods used by participants would use in a hypothetical KMS is illustrated in Figure 3.3-9. Keyword search would be used by most users. Navigating through a tree or network structure is also of interest in the search for experts. Surprisingly 64% would like to answer questions and a further 20% would do this if they had enough time – this means that 84% of the users accept that other users see them as experts and send queries to them.

A large number of attendees require functionality that involves active cooperation. This can be identified by 56% that like to make suggestions for improvement; this includes editing and commenting on information. The integration of a system for the management of documents and recommended links is also required.

How much interactions or search steps a user does on average before he breaks off is shown in Figure 3.3-10.

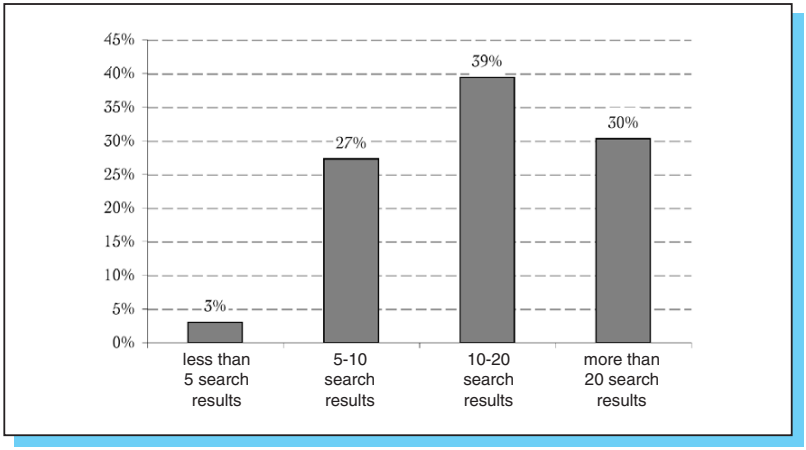

Figure 3.3-10 Sighted Search Results before Break-Off in Average

3.3.4 Personal Comments

This part of the survey gave attendees a chance to articulate special needs or ideas as free text. Only 9 participants used this option. They suggested that the knowledge pool within a KMS must have an added value for searching the internet which is an attractive alternative. A KMS should offer central access to all kinds of internal information as documents, presentations, external links, eLearning seminars, events and identification of experts.

Some participants argue that the quality assurance of concepts is highly important and that only experts should be able to do this for their topics of expertise. One participant does not trust individual experts and would like to communicate with communities only.

3.3.5 Résumé

Even though the number of participants of the survey is not very high, and 48% of the participants are beginners in the KM area, we assume a high degree of certainty of the congregated results because of several discussions of these results with knowledge management experts.

The main results for the development of the KBN concept, described in Chapter 4, are shown in Figures 3.3-8 and 3.3-9. The order of actions an employee will take to solve a problem (Figure 3.3-8) give an idea how a potential user want to be supported by the system.

The valuation of functionality of a hypothetical knowledge management system (Figure 3.3-9) identifies which functionality a potential user expects and which functions he would use. In combination with the results of the analysis of contact- and knowledge platform examination, this forms a large list of required functionality.

Some of the identified functions are implemented in most knowledge management systems. However most functionality supporting the following user activities has to be developed as part of the KBN concept:

- search experts;
- communication user to user;
- valuate resources;
- valuate experts;
- provide and valuate links to external resources;
- provide suggestions for improvement of resources.

Only attendees with KM experiences are asked for the quality of the KMS their company offer and this result is very unsatisfactory:

- 62% of the attendees were dissatisfied with their used KMS;
- 29% do not use the KMS and 14% use it but not willingly.

This offers a huge potential for improvements especially when developing the KBN concept.