Overview

Wikis, weblogs and discussion forums as instruments of knowledge management in SMEs of the IT-sector

1. Definition of SMEs (Small and Medium Enterprises)
2. Knowledge Management in SMEs
3. Characterization of wikis, weblogs and (discussion) forums
4. Decision Model and empirical study
Definition of SMEs

<table>
<thead>
<tr>
<th>Enterprise category</th>
<th>Head-count</th>
<th>Turnover</th>
<th>Balance sheet total</th>
</tr>
</thead>
<tbody>
<tr>
<td>medium-sized</td>
<td>&lt; 250</td>
<td>≤ € 50 million</td>
<td>≤ € 43 million</td>
</tr>
<tr>
<td>small</td>
<td>&lt; 50</td>
<td>≤ € 10 million</td>
<td>≤ € 10 million</td>
</tr>
<tr>
<td>micro</td>
<td>&lt; 10</td>
<td>≤ € 2 million</td>
<td>≤ € 2 million</td>
</tr>
</tbody>
</table>

Definition by the European Union as from 1st January 2005

Other quantitative definitions are available, e.g.
Institut für Mittelstandsfororschung/Bonn, Germany uses a combination of sector and turnover

Qualitative description of SMEs

- The company is characterized by the entrepreneur who very often also is the owner of the company
- The entrepreneur normally is the "general manager", thus he acts on his own risk
- The entrepreneur has a network of personal contacts to customers, suppliers and the relevant public sector. So the contact is close and rather informal
- The company usually acts very local
- The products offered can be very individual to the customer's needs
- The form of organization is rather informal and flat
- The company can react quickly to changes in the environment
Qualitative description of SMEs

- The company is not dominated or ruled by another company, e.g. part of big business concern
- The market share is normally small
- The products are little diversified
- About 36% of the SMEs are not older than 10 years (specific development stage)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Micro enterprises</th>
<th>Small enterprises</th>
<th>Medium enterprises</th>
<th>Large enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enter-prices</td>
<td>89.1 %</td>
<td>9.1 %</td>
<td>1.5 %</td>
<td>0.3 %</td>
</tr>
<tr>
<td>Number of persons employed</td>
<td>27.8 %</td>
<td>21.9 %</td>
<td>17.1 %</td>
<td>33.1 %</td>
</tr>
<tr>
<td>Value added</td>
<td>20.8 %</td>
<td>19.9 %</td>
<td>19.0 %</td>
<td>40.3 %</td>
</tr>
</tbody>
</table>

Role of the SMEs in the European Union

Goal of the European Union: to become the most competitive and dynamic knowledge-driven economy in the world by 2010
Why a special Knowledge Management for SMEs?

- A lot of theoretical research and development in knowledge management was already done
- A lot of empirical studies in knowledge management are available

- **BUT:** in the past most activities were for larger companies, not

- What makes SMEs so special?
- Why can’t the results made so far not be used for SMEs?

Advantages of SMEs in Knowledge Management

- Flat hierarchies
- Less organisational barriers
- Quick and short flow of information
- Long tradition in knowledge transfer, especially in crafts enterprises
- Continuousness in leading positions
- Clear and manageable structures of employees with many personal contacts
- Informal exchange of experience
- Small number of employees
- Personal and close links with the company
- Quick information exchange with little effort
- The improvement of knowledge transfer can much more be controlled by the individuals
Disadvantages of SMEs in Knowledge Management

- Limited resources (time, money)
- No person who is explicit responsible
- Unwillingness to document and describe
- Less effort for administrative work
- Less knowledge on knowledge management (fields of application)
- Quick information exchange with little effort
- Quick and short flow of information
- Small numbers of employees

Components of Knowledge Management

- Identification of the organization's knowledge
- Ability to capture and make this knowledge available
- A System to control and distribute this knowledge
- The capacity for people to add and enrich this knowledge
- The possibility of the organization's experiences to be added to the stored knowledge
- Knowledge to be used to meet organizations objectives
Requirements of Knowledge Management

- Understand the value of its intellectual capital
- Be a learning organization
- Have a knowledge-sharing culture
- Have an organizational culture that encourages sharing and a reward structure which supports sharing
- Be able to demonstrate success and sustain the required culture
- Use the appropriate Knowledge Management tools

Characterization - Weblog

- chronological order – like a diary
- discussion-oriented
- rather person-related
- RSS-Feeds
  - RSS = Rich Site Summary / Really Simple Syndication (2.0)
  - Reading of RSS-Files by special RSS-Reader-Tools
  - other web-sites can be “observed” automatically
  - own web-site can be updated continuously (e.g. news)
- Trackback
  - to track reactions concerning contributions on our web-site in other weblogs
Characterization – discussion forum

- Exchange of thoughts usually in a community
- Discussion-oriented
- Rather topic-related
- Subdivided in sub-forums (hierarchical structure)

Characterization – Wikis

- Hypertext system to add, remove or update information
- Every user can do this, sometimes without registration
- Easy to use
- Result is a collection of linked websites
- Distinction between author and reader will be lifted
- Wikipedia – well know “all over the world”
Empirical study - method and process

- Interviews within small and midsized enterprises of the western Austrian IT-sector
- Questionnaires completed by senior students at the MCI

Results

- Almost every enterprises uses any technology to store information
- Primarily for training and documentation purposes
- High heterogeneity of used applications
- Wikis, weblogs and forums are hardly used
- But potential of such applications is seen
**Initial findings**

- Employee training: forums, wikis
- Helpdesk: forums, wikis
- File management: CMS, groupware
- Documentation: weblogs, wikis, bug-tracking tools
- Students use weblogs, wikis and forums on a regular basis
Summary & future work

- Potential of wikis, weblogs and forums for knowledge management was outlined
- Various fields of applications were identified
- Decision-cube was derived

- Further research
- Fill decision-cube with additional tools and fields of applications

Thank you for your attention

Questions??