

Knowledge management challenges for small and medium organizations

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Abstract: - The paper presents the results of a project for organizational knowledge management. It highlights the knowledge needs and the main barriers for knowledge management implementation in some organizations in Europe, as well as the results of a knowledge audit pilot carried out in selected organizations. On this base are highlighted some challenges for knowledge management implementation and a possible way ahead.

Key-Words: - knowledge management, knowledge audit, barriers, case studies

1 Introduction

In the knowledge-driven economy, knowledge in both of its forms – tacit and explicit – has become one of the main factors for sustainable development and competitive advantage. Knowledge management (KM) has emerged in the last decades as response to the increased complexity in the business world and the need to take advantage of the available knowledge assets in organizations. Business processes have become more dynamic than ever before, competition and price wars have intensified them, and the new technologies have contributed to a fast changing environment.

Within the competitiveness and economic growth objectives of the European Union (EU), the concept of knowledge has emerged as a main differentiator and unique resource, and European companies and organizations have become more concerned how to successfully manage their knowledge resources and gain benefits from them. Knowledge management has developed as a new practice-oriented scientific discipline, exploring the opportunities of new management methods, cultural and organizational approaches and technology infrastructures in service of the companies. At the beginning driven by information and communication technologies (ICT) uptake, in the last few years KM has focused on human and cultural related issues. In order to grasp

the benefits of ICTs companies need a serious change program, including not just new technology deployment, but their integration into business processes and their proper usage by motivated employees. On bases of practical cases, as the most important factors for KM successes were identified [1]:

- Knowledge-oriented corporate culture
- Continuous learning and knowledge sharing
- Technical/ organizational infrastructure
- Senior management commitment and leadership
- Knowledge champions, such as chief knowledge officers (CKO)
- Link to economics or industry value

Linking organizational strategy with the knowledge management strategy is the first step towards KM in organizations [5]. Here, a clear understanding is necessary of the existing knowledge gaps coming out of the recognized strategic gaps. Therefore, a need emerges to make an analysis of the knowledge assets of the organization, their usage, the internal and external knowledge processes and flows, etc. The Knowledge Audit (KA) is the appropriate tool for answering all these issues. According to Dalkir [3], and Hylton [4], knowledge audit identifies the core information and knowledge needs and uses in an organization, their gaps, duplications and flows, and

how they contribute to business goals. More generally, KA investigates how an organization applies KM within its business processes. It aims at the following objectives [1]:

- uncover strengths and weaknesses within the actual corporate management of knowledge assets and business processes;
- analyze circumstances, barriers and enablers of the KM as corporate culture, leadership, human resources management (HRM), information technology (IT), process organization and control;
- increase awareness of KM within the company;
- design a roadmap for KM implementation and measure;
- collect measurable data for control purposes.

Studying KM theory and practice was one of the objectives of a recent EU-funded project. The main goal of the TRAINMOR KNOWMORE project was to provide useful tools for KM implementation in small and medium enterprises (SME). KM needs analysis in SMEs, pilot KA in organizations were among the main results of the project which this paper presents briefly. The authors also make an attempt to highlight some problems identified in SMEs and consider the challenges for them related to KM implementation. The results of a pilot KA in three organizations are also presented in the paper and some differences among them are pointed out.

2 Project methodology

The paper is based on the results obtained during the TRAINMOR KNOWMORE project of the Leonardo Da Vinci program. In the project participated 10 partners from Austria, Bulgaria, Cyprus, Germany, Greece, Ireland and Romania. The objective of the project was to study the needs of SMEs related to KM and on base of the identified training needs to prepare a practical guide for KM implementation – Organizational Knowledge Management Handbook accompanied with a Self Audit Knowledge Management Tool and Methodology.

The initial survey included 106 questions, with attempt to precise factors for KM development across employees' positions, sectors and countries. It focused on availability and use of knowledge, organizational culture, KM implementation issues and possible benefits for the organization. Its results were implemented for design of the training path for different types of employees and for determining the content and practical tools to be included in the KM Handbook.

The KA tool was pilot tested in organizations in the partners' countries. The questionnaire included several sections which could be adapted to the organizations' specific needs, and the questions could be deepened according to the goals of the analyses. The following sections were included:

- Demographic analyses
- Knowledge Profile Analysis
- Work Nature Analysis
- Strategy and management style
- Knowledge and Information Sources
- Information Technologies use
- Social Network Analyses
- Corporate Culture and Staff fit
- Motives and salaries

3 Main project findings

3.1. Knowledge needs and barriers for KM

The initial survey provided inputs from respondents of Greece (31), Bulgaria (61), Cyprus (18), Germany (39), Ireland (17), Austria (17) and Romania (16). The survey found out which knowledge is considered "very important" by most respondents (Fig. 1). The biggest number of respondents from Germany (94%), Greece (61%) and Romania (75%) emphasized the knowledge of procedures and processes, tasks and systems (Know-how) or in-house knowledge, while those from Ireland (76%) and Austria (71%) stated as "very important" the ability to source external knowledge relevant to company activities (know-where) - (e.g. competitor, and customer information, market trends, attendance at trade fairs, etc.). It is interesting to note that "know-where" is ranked highest (61%) as very important on average for all countries, concluding that the value of external knowledge is highly recognized. The knowledge of the most suitable persons and key figures to fill key roles and functions within the organisation (know-who) is top-ranked in Cyprus (83%), Bulgaria (54%) and Romania (75%). Knowledge gained through previous work experience as well as theory-based and scientific knowledge relevant to the organisations activities (know-what), is admitted as very important for Germany (83%), while in the other countries it's priority is ranked on average on low positions, explained by the volatility of the knowledge in the fast changing environment [2].

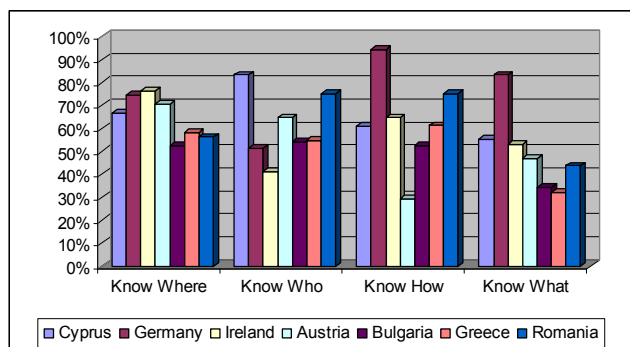


Fig. 1 Categories of knowledge marked as “very important”

Regarding barriers for KM implementation, most of the respondents marked that the lack of a “champion” to drive KM implementation is the most serious and definitive problem. Other respondents pointed out “Lack of experienced Managers”, and “Resistance in senior management” highlighting the importance of the resistance in senior management and superiors as definitive barriers. It is interesting to note that lack of IT equipment, lack of finances, and lack of time represent a barrier only for 13%. In addition, the majority of the respondents state that lack of IT (38%), staff resistance (30%), lack of experienced staff and management (29%) are not subsistent barriers for their organizations [2].

These results show that the most important factors for KM implementation in SMEs are human factors and that the management of the organization should commit itself to the KM initiative. An important issue is to decide how to convince top management and senior management executives that KM use brings company benefits. In addition, all employees should be well motivated and guided by company leaders supporting the KM initiatives.

3.2. Knowledge audit main findings

The main objective of the KA within TRAINMOR KNOWMORE project was to investigate the factors within the organization which influence its knowledge processes, sharing and more generally the ‘knowledge health’. Here will be provided some results of the KA carried out in 2 research organizations and 1 NGO.

The results obtained show that the NGO and both research organizations have very high educational profile of their staff – more than 70% of staff with tertiary education [6], [7], [8]. The business objectives and the educational level of employees determine also the knowledge specifics of the different organizations:

- The research organization in Bulgaria (BG) is established at a university and the core staff

consists of university lecturers and PhD students engaged in research projects and training.

- The Greek research organization (GR) has focus on knowledge-intensive services and research projects.
- The core activities of the Romanian NGO (RO) are linked to SME support.

The core business of the organizations determines the difference in their training needs – in GR the highest needs are in business planning, consulting services and project management, while in RO the main needs are in the area of project and financial management, IT and law.

A common characteristic of these knowledge intensive organizations is that their staff has strong IT skills and devotes more work time for knowledge processing, and uses mainly own electronic files and resources found on Internet or in the corporate network. Own professional and theoretical knowledge are equally high assessed by employees and applied in business processes. These knowledge elements are of high use also for the other employees in all three organizations. Personal networks are highly assessed and utilized in the GR and BG organizations, but less needed and used in the RO NGO. Besides, older employees assess higher their personal networking value than the younger ones.

The preferred way of communication of most employees is face-to-face, followed by phone and e-mail communications.

The communication channels show some differences among these organizations:

- The internal communications among employees has less importance in the NGO, whereas in both research organizations team work and internal communications are essential.
- The meetings with customers bring highest value in GR, followed by the formal meetings, whereas in RO – business events and informal meetings are of higher importance, and in BG – internal meetings and meetings with partners and at research events are ranked higher than business events or meetings with customers.

The type of organization and the overall environment imply on the organizational culture and personal motivation. It is interesting to note that there is reported very high level of trust among staff, team work and cooperation resulting in satisfaction of internal relations in GR, however, motivation and satisfaction from salaries is at average level. Open debates, autonomy, flexibility and creativity support – characteristic of GR organizational climate. The RO and BG employees also rank high team work and satisfaction of internal relationships and own

position, whereas staff motivation and trust are on average level of assessment.

Various technologies supporting KM are in place and used in all organizations, however, the main problems are related to human and cultural issues. Generally, lack of time is the most important barrier for KM in GR and BG, and the less significant in RO. Lack of motivation for knowledge sharing is the most important barrier in RO, and on a second place in BG and GR, followed by lack of willingness and flexibility for changes in the way of working. Organizational culture seems not to be an essential barrier in all three cases, as well as knowledge sharing is considered to bring benefits to them. For example, in BG are considered some important initiatives for KM and as the most important ones are considered sharing and classification of available resources (Fig. 2).

4 Conclusion

The work carried out in TRAINMOR KNOWMORE project provided an insight into KM needs, implementation approaches and challenges of some European organizations. At the same time, it clearly pointed out that the most important factors

for KM presently are ‘soft’ factors related to the overall organizational culture, trust and confidence among employees, team work and motivation. Lack of time is an important factor, too, but the initiatives for improvement of access and use of organizational knowledge resources might essentially imply on reducing duplication of work and losing time for searching of documents or knowledge resources which are available in the organization.

Knowledge audit is an essential tool for diagnostic of the state-of-the-art before KM implementation. It could be used as well as a tool for repetitive analysis of the KM effectiveness for the organization and the individual employees. However, there is a need for a wider knowledge audit in order to assess knowledge gaps and flows, and serve as a basis for preparing knowledge maps of organizations, thus providing a tool for overcoming the gaps in finding the necessary skills and expertise.

While knowledge management was initially implemented by large companies, nowadays it is essential also for SMEs to grasp its benefits. To sustain the present financial crises SMEs need much more proper utilization of the existing knowledge and intellectual capital.

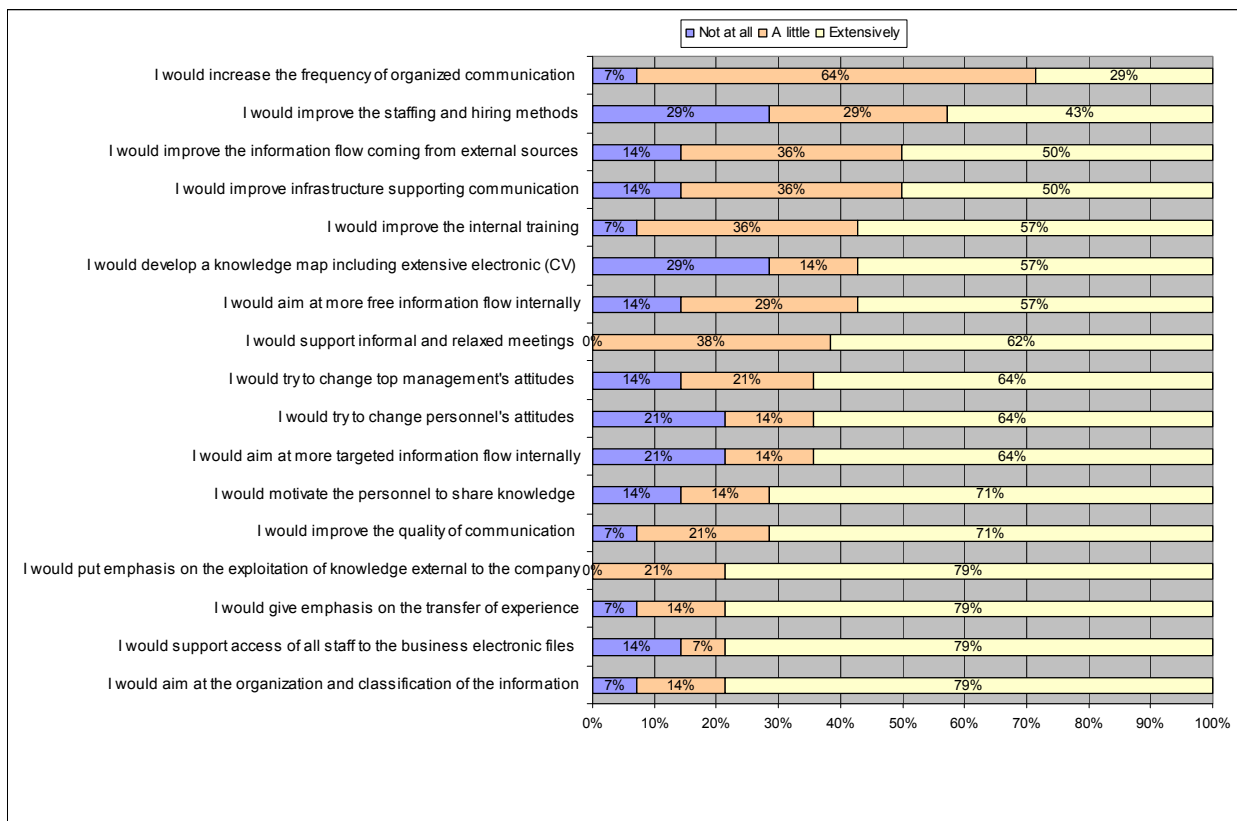


Fig. 2 Initiatives for better exploitation of organizational knowledge capital

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