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Case Studies of Sharing Processes within Organisations

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Abstract

Nowadays, organisations of various types lack the innovative potential and renewable resources as well. Sharing processes within organisations can provide and enhance these initiatives. Therefore, a research was conducted to reveal useful information and principles of processes within companies which operate in the area of information and communication technologies. The influence of various factors is examined and different perspectives of organisational stakeholders, managers and directors are considered. Especially the significant impact of information and communication technologies and other supportive tools are described in more details. Moreover, a proper information and communication technology infrastructure is one of the effective factors leading to an organisation's successful deployment of knowledge management strategy. The data gathering as well as interviews with managers of selected organisations were employed as research methods. All the mentioned issues are discussed in more details, confronted with theory and also analysed for further use. The mentioned implications can serve as a useful framework for organisations of various types.

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1. Introduction

Currently, there is a significant competition among the companies which are liked with information and communication technologies (ICTs). Therefore, they need to increase the efficiency and effectiveness of their processes and procedures. There are a lot of technological tools and applications available for sharing. These usually provide wide options, modules and advanced settings. Additionally, nowadays the prices of such technologies which can support the mentioned initiatives vary a lot. It results in particular importance to employ these which are both cost-effective, and covering the organisational as well as individual and team needs.

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The intension of this study is to examine which ICTs are used for information and knowledge sharing within technological organisations.

More specifically, the following areas are covered:

- Concept of the information and knowledge sharing
- Type and way of the information and knowledge sharing
- Benefits and obstacles connected to the information and knowledge sharing
- Knowledge transfer possibilities

Section 2 reviews the literature including the definitions of information and communication technology as well as information and knowledge sharing. Moreover, knowledge management concept is mentioned. In section 3 the research design is introduced. Progress of the whole research team, as well as methods and data collection are described in more details. In section 4 the results and findings of the particular interviews are reported. Finally, in section 5 limitations and possibilities of further research are discussed.

2. Literature Review

2.1. The role of information and communication technology sharing

In general, very good cooperation and communication lead to better flow of information and knowledge (Kolerová & Otčenášková, 2013). One of the roles of information and communication technologies is to create the right and proper culture for sharing information and knowledge. Organisational culture that appreciates the value of knowledge and its sharing has a very significant role in successful knowledge transfer (Paghaleh, Shafieezadeh & Mohammadi, 2011). Such culture creates the opportunity for personal contact ensuring the transfer of explicit knowledge. Nevertheless, it provides also with the environment in which the tacit knowledge could be transferred. This is the type of knowledge that could not be grasped efficiently and is not easily stored in documents and databases transfer (Paghaleh, Shafieezadeh & Mohammadi, 2011).

Knowledge sharing between employees, teams and departments enables the organisation to capitalise on knowledge-based resources (Nesheim & Gressgard, 2014). Many organisations have invested in various formal knowledge management systems to facilitate the collection, storing and distribution of knowledge, but these systems have often failed to ensure the expected outcomes (Babcock, 2004; Carter, & Scarbrough, 2001).

The sharing processes are not effectively managed and realised in many companies nowadays. It is even more incomprehensible considering the advantages of sharing processes and their benefits within current highly competitive environment. Nevertheless, a significant dependence on the company size revealed that especially smaller companies should care about their performance and processes to enhance their efficiency (Otčenášková, Kolerová & Bureš, 2014).

Organisations must emphasise the transfer of expertise and knowledge from those who possess it to novices. Thus, in order to reach its performance goals it is important to exploit the knowledge resources that already exist in the organisation (Wang & Noe, 2010).

The continued diffusion of new ICTs is an example of the dynamics of technological change and economic development (Freeman & Soete, 1997; Koellinger, 2006). These changes affect almost all aspects of the economy, including the dynamics of innovation, productivity and growth, firm performance, the development of market structures and the demand for labour. In short, ICTs are an important factor of progress (Kossai & Piget, 2014). The assumption is that firms invest in ICTs in pursuit to become more successful in highly competitive markets (Koivunen, Hätonen & Välimäki, 2008). ICTs are used as a production technology to improve labour productivity and coordination within the firm (Raymond & St-Pierre 2005).

2.2. Knowledge management

Knowledge management is today a relatively well-established managerial discipline (Brunet-Thornton & Bureš, 2013). Alavi and Leidner, (1999) define knowledge management as “a systemic and organisationally specified process for acquiring, organising and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work”.

Tacit and explicit knowledge are the main important taxonomy of knowledge (Nonaka & Takeuchi, 1995; Polanyi, 1962). Explicit knowledge is the kind of knowledge that is communicated in a formal and systematic manner. Explicit knowledge is knowledge related to information and easy to articulate (Nonaka & Takeuchi, 1995).

Organisations can choose to invest all their resources into knowledge management. However, when employees are not participating in sharing their knowledge among themselves within the organisation, then the knowledge management efforts result in a failure. When knowledge is not shared in the organisation then the benefits of knowledge will not be actualized (Okyere-Kwakye & Nor, 2011).

3. Research Design

The research encompasses two phases. The first one included preparation of question related to information and knowledge sharing and the second one was represented by the realisation of the semi-structured interviews.

The first phase was aimed at designing questions about factors of information and knowledge sharing within organisations. After the review of literature and brainstorming of the research team the following questions were stated:

- What does a concept of sharing of information and knowledge mean for you personally?
- Which information and knowledge do you share within your organisation?
- How do you share information and knowledge specifically?
- How often and when do you share information and knowledge?
- What does support the most the information and knowledge sharing within your organisation?
- What does complicate or obstruct the most the information and knowledge sharing within your organisation?
- How do you carry out knowledge transfer in your organisation?

The second phase was focused on the realisation of the semi-structured interviews with managers, directors or responsible employees of technological companies. At the beginning of the interviews, the aim was to find out basic information about the object of business, the number of employees, the place of business, the sector of business (private or public) and the membership in different associations. Afterwards, the interview was focused on the questions linked with knowledge and information sharing mentioned above.

4. Results

Based on the research analysis, the results are categorised to the following sections. The first one describes the information and knowledge which is shared within the analysed organisations. The second one continues with technologies and tools which are preferred from the perspective of involved respondents. Consequently, the limitations, barriers and problems faced by the companies are summarised.

4.1. *Information and knowledge being shared*

Mostly, the analysed companies divide the shared information and knowledge to two categories. The first one is linked with external processes and the second one is represented by the internal information. The external communication and sharing processes comprise the compulsory documents such as annual reports or financial statements which have to be shared.

The second category can be divided to two more detailed ones. The first one includes less strictly secured documents and information used also within the external communication with sales representatives, administration staff, company management and employees on various levels. It comprises issues mostly linked with customers, conditions of the business cases, customer requirements, project documentation and the like. The second one is the

most crucial category gathering organisational know-how in form of professional knowledge represented by the information about the projects, technological procedures, manuals or bullet-point instructions, plans of used technologies, source codes, graphical designs, suggestions, description of potential problems and their solutions, as well as already realised solutions. One researched company exemplifies the attitude linked with the concept of organisation FAQ (frequently asked questions) representing in this case the database of solved problems and the provided solutions. For the documentation, mostly Microsoft Office is used and word, powerpoint or excel files represent the outcomes together with pdf files.

4.2. Employed technologies and tools

The mentioned files, documents or any other media possessing information and knowledge are shared mostly in the same or similar ways. They use mostly the local network drive and shared drive space in cloud. There, the documents are in all cases categorised on the basis of their importance, type, contract and the date when it was accepted by the company. Among advantages, the drives and clouds should ensure the possibility to search within the existing database of files and materials. The search engine is mentioned as one of the most important aspects of sharing. Some companies still store also the printed versions of particular documents, because it is sometimes required by law or by the customers. Nevertheless, their amount is significantly decreasing.

Among most frequent and popular sharing technologies, Dropbox and Google Docs are mentioned. The fact that most companies use Google Apps is relatively obvious. It offers easy user interface and the options are provided for free. Only one company uses also systems including Enterprise Resource Planning, Enterprise Content Management or Customer Relationship Management. These also support their sharing processes, but they are too expensive or complicated for small- and medium-sized enterprises which were included in the research sample.

Within the shared drives and clouds, it is crucial to pay attention to the security issues. Surprisingly, all the companies do so. Therefore, the particular sections are available variably to selected employees as well as departments on the basis of their status. This approach should ensure that the sensitive information is accessed only by the organisational management. Among future plans, most companies tend to invest money to the advanced technologies. For example, intranet based on Microsoft Sharepoint technology is considered as an option. This solution should after the customization and implementation provide the platform for more effective knowledge sharing.

Email client and Skype are used most often for the communication. Telephones and personal contacts are in some cases refused or not preferred, because of the fact that history tracking is not possible. As a result, an important information or knowledge might be lost. Only one company already invested into more sophisticated technology - Microsoft Lync which is similar to Skype to a certain extent, but provides wider options for the end users. They use it for the purposes of discussions about the technical problems and for real-time distant training of employees from various branches. Moreover, the utilisation of shared notepad OneNote and calendar is present in this case as well. Thanks to the mentioned supportive tools, communication is much easier and the documents are exchanged more effectively.

4.3. Mostly mentioned problems

The companies mostly mention the problem of the determination of the relevancy and importance of the information and knowledge which should be saved. Therefore, sometimes, the important data are neglected or lost. Consequently, the inefficient resource management occurs, because time, financial, human and other resources have to be used for the solution of the same problem. Furthermore, from the user perspective, it is very difficult to keep all the information up-to-date.

Other problems are linked with human resources and their reliability. The wrong or irrelevant and incomplete inputs to the used systems and technologies are mentioned relatively often. Nevertheless, the analysed companies are not big enough to employ an employee who will just control, proofread and check the input information and knowledge.

The last but not least issue is linked with limited technological and economical resources resulting in the impossibility to buy and use more advanced technologies. The last examined area included the issues of technology

transfer. Unfortunately, any company from the research sample has not ever managed these initiatives. The most significant reason is that they have not realised the benefits of such practices.

5. Research Limitations, Further Research, Management Implications and Conclusions

This study possesses particular limitations. The research sample is focused just on technological organisations in the Czech Republic. The generalizability of this study to the same technological organisations worldwide might be narrowed because of different conditions and environments they operate within. Obviously, the organisations from other countries may or may not have similar work patterns, cultures, employees and organisational systems. Moreover, the availability of technological tools and technological platforms differ significantly together with the technological environment of the given economy. Therefore, the organisations vary in use of various information technologies for information and knowledge sharing and also in the efficiency of such practices.

Some important topics for further research can be outlined. The enlargement of research sample relating especially to the different background and business area of investigated companies serves as an example. Other issues involve the analysis of advanced technologies, their availability and suitability for the companies' performance.

This study focused on the technological organisations and the information technology they use for information and knowledge sharing within organisations as well as with other subjects (suppliers, purchasers, governments etc.). It revealed the areas of information and knowledge which are mostly shared within the organisations. Moreover, it was proved that ICTs are employed more or less effectively. The fact that all the researched companies use particular technologies confirms the necessity to do so. The proven examples mentioned in the study might serve as a good example for organisations which do not use any of these. Nevertheless, the extent can be even wider and the technology transfer might be involved within organisational processes as well.

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