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Knowledge acquisition in small and medium-sized enterprises

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Knowledge acquisition in small and medium-sized enterprises

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Abstract: This article applies to the process of organizational knowledge acquisition by managers and specialists with possesses manager license. In the theoretical part explained concepts of knowledge, knowledge management, knowledge sources, the step of creating and acquiring knowledge. The research part focuses on the presentation and analysis of obtained results of research performed by the author.

Introduction

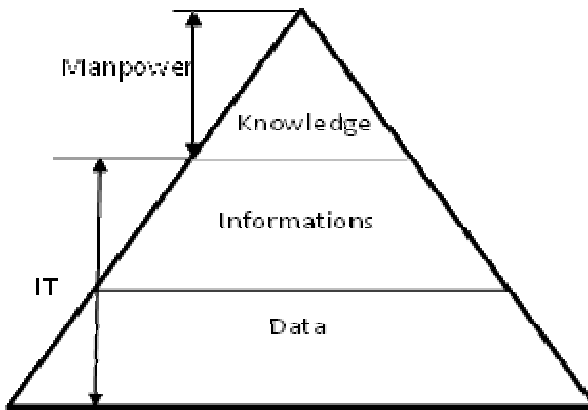
The problems associated with the process of knowledge management in present organizations, including those from the small and medium-sized, are often undertaken in Polish and worldwide literature. The subject has been described by many researchers, from different points of view: management, economics, psychology, accounting, sociology. Despite such a broad research of the topic, it is still alive, but not well studied. We live in the time of a knowledge-based economy (KBE), so the search for new opportunities to acquire knowledge, its application and use, is an important issue. In the research area of the article author, acquisition process (absorption) of knowledge in the sector of small and medium-sized enterprises (SME) is the main interest.

Methodology of the research

The study was carried out on a sample of 30 companies from the sector of SME in the Lodz region (Poland). The surveyed companies represent different sectors (eg. textile, food, metal, transport). In order to conduct the interview, forty managers of different levels and specialists from various fields and functions (eg. supply, logistics, HR, IT) were chosen. The research was carried out in the framework of the Faculty of Management at the University of Lodz at statute as its chartered activity (about own activity). The research tool was a questionnaire. The purpose of this article is to present the results of research in connection of the knowledge acquisition in the SME. The hypothesis is: the most common sources of organizational knowledge in the process of absorption are: employees, the Internet and trainings. The research is a continuation of the study started in 2014. Parallel to these, studies in the area of the internationalization of enterprises are being conducted.

Knowledge- the concept and essence

Knowledge is deemed to be the key resource of an organization and a key factor in the success of any business, regardless of size or industry type. It has an impact on the company's mission, objectives, vision, strategies, methods and technologies. P. Drucker notices that the material resources of the organization went to the wayside (Drucker, 1999, p. 13). According to many sources, the basis of knowledge are both: data and information (Brdulak, 2005, p. 14) (Fig. 1).

Figure 1 Hierarchy of knowledge in the organization

Source: Applehans et al (1999), p. 20, Brdulak (2004). Retrieved from <http://www.e-mentor.edu.pl/artukul/index/numer/4/id/52> (14. 11. 2014)

The data are numbers and events, which are the constituent elements of information (Grudzewski & Hejduk, 2004, p. 75). The data can be informal and unorganized, however it can also be ordered and formalized, and "tailored" for the user's needs they become an information. An information is a registered, grouped, collated and interpreted form, from the point of view of the particular situation (Galata, 2004, p. 59). Knowledge is a specific type of organization resource, which comes up along as it is used (in opposition to the other organization resources) (Galata, 2004, p. 50). An information is defined as everything that anyone knows about a particular field or a particular subject (Penc, 1994, p. 3). The word "information" comes from the Latin *information* (explanation, image, notification); and knowledge is a "supply of messages from a particular area" (PWN Encyclopedies[in:]<http://encyklopedia.pwn.pl/haslo/3914686/informacja.html> [odczyt dn. 12 XI 2014]). The Polish Dictionary says that the information is understood as a "message about something (Bańko (Ed.), 2005, p. 543)," but also a "data processing by a computer" (Drucker, 1999, p. 43). Knowledge is explained as the "general information acquired through learning, understanding of something, awareness of something." In the literature there is a consensus on the fact that the data are the basis of creating an information, and those makes the organizational knowledge. P. Drucker, one of the first researchers in this area, has emphasized the importance of knowledge in the economy, he defined it as an effective use of information (Drucker, 1999, p. 43). A.K. Kozminski refers the

knowledge to the formation of competitive advantage, noting that transformed prior knowledge, becomes a secondary knowledge, which in the process of knowledge management can give an advantage in the market (Kozminski, 2005, p. 96). An interesting definition of knowledge is given by A. Tiwana, from his point of view, it is a mix consisting of contextual experiences, values, skills, information, understanding and assimilation of new information (Tiwana, 2003, p. 60). Moving on to the term of organizational knowledge types, it is comprehensively presented by B. Mikula, who has upheld the knowledge components such as: core of a personalized knowledge, personalized knowledge itself, codified knowledge, well-established knowledge, up to the organizational knowledge, which determines the key competencies (Mikula, 2005, p. 16). With the core the modification of personalized knowledge to the codified is possible.

Knowledge management- essence, components, steps

The concept of knowledge management also has many definitional approaches regarding its essence. Among them, the most often developed (by advisory and consulting companies) can be listed, as they are based primarily on the use of knowledge as a source of competitive advantage of the company. According to K. Perechuda: knowledge management is a process by which it is possible to continuously execute the functions of management (Perechuda (Ed.), 2005, p. 219) and "management in terms of the knowledge-based economy" (Perechuda (Ed.), 2005, p. 219). Referring to the Encyclopedia of Management, the definition explains the process as "general actions for the identification, preservation, dissemination and use of knowledge overt and covert of the company staff, mainly for increasing the efficiency and effectiveness of employees actions" (Encyclopedia of Management [in:] http://mfiles.pl/pl/index.php/Zarządzanie_wiedzą [odczyt dn.: 12 XI 2014]). D. J. Skyrme sees knowledge management through the prism of the stages of the process: creating, gathering, organizing, diffusing, use and exploitation (Skyrme, 1999, p. 59). On the other hand M. Sarvary emphasizes that knowledge management is a business process by which companies use organizational knowledge (Sarvary, 1999, p. 95). Similarly to D. J. Skyrme, understanding of the process of knowledge management can be found in the book *Knowledge management in organizations* (G. Probst, Raub S., K. Romhardt). The authors have developed a knowledge management scheme, where can be found following steps:

- Acquisition of knowledge,
- Locating of knowledge,
- The preservation of knowledge,
- The use of knowledge,
- Sharing of the knowledge (dissemination),
- The development of knowledge (Probst et al., 2002, p. 42).

A. Jashapara proposed own approach in the process of knowledge management cycle. His approach is based on the following specific processes: knowledge discovery, knowledge generation, application of knowledge, valuing knowledge and its dissemination (Probst et al., 2002, p. 42). E. Skrzypek defines the knowledge management as a combination of: understanding and experience, overt and covert knowledge, and physical and social technology (Urbańczyk (Ed.), 2001, p. 254). From the economic point of view, the essence of this process is presented by K.M. Wiig, saying that it is a systematic and thoughtful creation and application of knowledge in order to maximize the efficiency of the business and achievement of a profits on the resources of knowledge (Wiig, 1993).

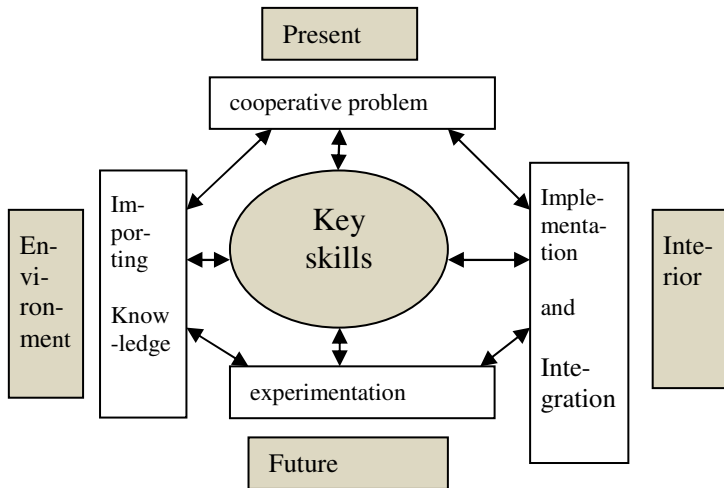
Generally, in a multitude of definitions, they can be divided into two paths according by the approach of the knowledge management process: as information systems, where the key role is an information management and technical-technological support and a management of human resources in the organization (Jashapara, 2006, p. 26). From the point of view of the subject of this paper, the author combines the two paths in the process of knowledge management, especially taking into account the stage of acquisition.

Sources of knowledge and knowledge creation stages

Acquiring a knowledge is often called absorption (Polish Language Dictionary). The word comes from the Latin *absorptio* and means to imbibe of something (PWN Encyclopedies). This is the initial step in the process of knowledge management. The basic conditions that are conducive to the process of acquisition and creation of a knowledge in organizations, include mainly appropriate organizational culture. It makes the employees engaged to the process of knowledge acquisition. A crucial role is played by managers, who through the attitude, style of management and appropriate systems of motivation, can and should create a culture based on the knowledge. Among the basic conditions conducive to organizational knowledge acquisition I. Nonaka and H. Takeuchi mention the following order: intention, autonomy, instability (creative chaos),

redundancy and the desired diversity (Nonaka & Takeuchi, 2000, p. 98). Based on the resource model, also known as "sources of knowledge" model, which was created by D. Leonard - Barton, can be distinguished both the existence and interaction of several elements for the proper management of knowledge (Fig. 2).

Figure 2 Model of knowledge sources



Source: Leonard-Barton (1995) In Sopińska, Wachowiak (2006). Retrieved from <http://www.e-mentor.edu.pl/artykul/index/numer/14/id/275> (15.11. 2014)

A. Sopińska and P. Wachowiak say that the model of knowledge sources (above) "is too firmly rooted in the realities of the industrial economy to bring any revolution in terms of knowledge creation. The more that most of the results of the organization are focused on short-term activities related to the exploitation of the existing knowledge, rather than exploration (and creating) new knowledge" (Sopinska & Wachowiak, 2006). The process of knowledge creation is supported by a number of activities and initiatives aimed to increase the amount of knowledge in the organization, needed to achieve a competitive advantage (Jaśkowiec, 2010, p. 26). M. Kłak brings the knowledge creation process to the following activities:

- Search for new information,
- Selection of the information,

- Creating concepts, structures and properties (Kłak, 2010, p. 49).

M. Sarvary calls the process by which a company acquires knowledge as organizational learning (Sarvary, 1999, p. 96). M. Morawski notes that the process of acquisition (creation) of knowledge is one of the elements of knowledge management and is part of the knowledge, which derives from internal as well as (mainly) external sources, which refers to the environment (relations with customers, suppliers, partners, etc.) (Morawski, 2005, p. 80). All of the concepts of knowledge management process, include and emphasize the importance of an elements like the process of acquiring and creating knowledge. The author of this article deems that the acquisition and creation of knowledge are sequentially succession, but not identical, however for the simplicity in the study of these processes, they are called as a one term: absorption of knowledge.

Knowledge absorption in the enterprise- analysis of the results

In the section on research methodology has been emphasized that the research was carried out within its own statutory activities. Respondents were informed about the purpose of the study and about the key definitions related to the process of knowledge management, including the process of absorption of knowledge in organizations. 40 managers and specialists were interviewed, all respondents answered affirmatively to the question about the possessing the knowledge as a potential source of competitive advantage for the organization. In the free statements they have emphasized that the knowledge have to be acquired and updated continuously. Only then it is possible to meet the demands of the market and follow the customer demands, also an increased competition forces a company to develop the knowledge.

Another part of the study was to provide to respondents prepared and randomly written sources of knowledge. Respondents were asked to evaluate the importance of different sources of knowledge absorption and frequency of their use, using the elements of subjective and objective evaluation. For this purpose, the following scale was used:

- no significant - "0"
- small significant - "1"
- Strong significant- "2"
- Very strong significant - "3".

The scale was related to several key processes: supply, production, sales, management, introduction of new technologies.

The results in the rows of a table were developed as statistically most given answers (40 managers and professionals from various fields) (Table. 1).

Table 1. Sources of knowledge (Listed only those sources that have the power of the strongest impact labeled- "3")

Source of knowledge	Supply	Production	Sale	Management	Introduction of new technologies
Internet	3	3	3	3	3
Top manager	2	2	2	2	2
Employees	2	3	2	1	3
Providers	3	3	1	1	3
Customers	3	3	3	2	3
Knowledge acquisition alone	1	3	2	1	3
Training	3	3	3	3	3
Company documentation	2	2	2	2	3
Technical documentation	2	2	1	1	3
Studies	2	1	3	2	2
Research, analysis, reports	3	3	3	3	3
Databases existing in the company	1	2	2	2	1
Books, magazines, media	3	2	2	2	3
Benchmarking	2	3	3	2	3
Friends, family	1	1	1	0	1
Contests	0	1	1	1	2
Cases of Polish and foreign companies	1	3	2	3	3

Source: own analysis

Analyzing the results presented in the table, it can be noticed, that the strongest influence (on the surveyed managers and specialists) on absorption of knowledge are the following sources: the Internet, trainings, research, analysis and reports; then: customers, employees, business documentation, benchmarking, cases of Polish and foreign companies. Statistically the smallest significance for the respondents have: friends and

family, contests, databases existing in the company. Subsequently, analyzing the data of the table, referring to the importance of the various sources of knowledge, it can be noticed, that the same sources influences stronger some particular processes, and less some other. The results show that:

- For the supply process (in the process of knowledge absorption) strongest influence have: the Internet, suppliers, customers, trainings, research, analysis and reports, books, magazines and the media;
- In the production process: the Internet, suppliers, customers, independent acquisition of knowledge, trainings, research, analysis and reports, benchmarking, cases of Polish and foreign companies;
- In the sales process: Internet, customers, trainings, studies, research, analysis and reports, benchmarking;
- For the process of management: the Internet, training, research, analysis and reports, cases of Polish and foreign companies;
- In the process of new technologies introduction: the Internet, employees, suppliers, customers, independent acquisition of knowledge, training, documentation, business and technological documentation, research, analysis and reports, books, magazines and media, benchmarking, cases of Polish and foreign companies.

The expanded interview shown that the trainings are generally low assessed. The respondents emphasized that trainings are often different from their expectations. The author of this article is interested particularly in the question of workers as a source of knowledge. Studies have shown that in this case it is certainly underestimated resource. Managers note that employees do not show initiative in improving processes nor knowledge sharing, and they should be more often motivated to "show independence in thoughts and action". Since the purpose of this article was not to study the existing incentive schemes in the surveyed companies, nor checking their impact on employees' engagement, and due to the fact that the respondents were people holding managerial positions, the questions about wages and/or motivation bonus were not asked. In addition, the surveyed companies represent different industries, so the workers employed, are often characterized by different licenses and skills, hence the question of average wages would be unfounded. However, there is a presumption of serious infirmities in the system of evaluation and remuneration of employees' in the surveyed enterprises.

Barriers and difficulties in the knowledge absorbing

In the literature different barriers associated mainly with the process of knowledge sharing are often described. The barriers of organizational knowledge obtaining are mentioned seldom. Often, although wrongly in the opinion of the article author, it is assumed that knowledge is widely available and anyone can reach it. Respondents have indicated various examples of the difficulties and barriers related to the process of knowledge acquisition in the surveyed enterprises. They are presented in the table below.

Table 2. Barriers and difficulties in the process of absorption of organizational knowledge (Listed only those sources that have the power of the strongest impact labeled- "3")

A kind of barrier	Impact strength
No access to the Internet	0
No friendly IT	3
"Unsupportive" management style	3
Unwillingness of workers to self-development	3
Inability to self-knowledge acquisition	3
Unwillingness providers to share knowledge	3
Lack of commitment to the processes of the customers side	2
Lack of time for additional improvement, for example courses, etc.	3
High costs	3
The belief that contribute little training	1
The belief that the studies do not prepare for practice	1
Untrustworthy preparing documentation of business and of technological documentation	3
Lack of ability to use sources of knowledge	3
Reluctance to performing research, analyzes, reports	3
Lack of appropriate databases in the company	3
No of tangible publication	2
Barriers associated with the use of benchmarking	3
Information noise, uncertainty information	3
No connection with the acquisition of knowledge in the company's motivational system	3
No strategy, no objectives	3
Lack reliable scientific studies and case studies	3
Lack of proper organization and coordination	3

Source: own analysis

Analyzing this data, it can be seen that the greatest impact on the barriers formation (in the process of knowledge absorption), according to the opinion of the respondents, have following factors: lack of friendly IT, "unsupportive" management style, reluctance of workers for the self-development, the reluctance of suppliers to share the knowledge, high cost of the knowledge acquisition, lack of time for additional improvement, unreliable technological and company documents preparation, disability to use sources of knowledge, inability to self-knowledge acquisition, unwillingness to perform research, analyzes, lack of relevant databases in the company, barriers associated with the use of benchmarking, hype and uncertainty of information, lack of the connection between the knowledge acquisition and the company's incentive system, lack of strategy and clearly defined objectives, lack of reliable scientific studies and case studies, lack of organization and coordination. Lack of access to the Internet in the opinion of the respondents is not the main barrier in the process of acquiring knowledge, they said that in the era of computerization, the access is basically unlimited and it cannot create a barrier.

Summary

The study had a pilotage character and it is a complementation to the study, carried out in 2014. The author is aware that the results are unrepresentative. However, on this basis it can be concluded that the Polish companies in the sector of micro and SME is not prepared for the overall process of knowledge management, even though the importance of knowledge acquisition for the competitiveness of the organization is clearly seen, it is not formal, regulated, or mandatory. It is not even systematic. The hypothesis was partially verified positively and partly falsified. The author of this paper in the past was a person in the position fulfilling a managerial functions, emphasizing on the workers knowledge as the most important (in her opinion) source of knowledge in the process of organizational knowledge absorption, so it was somewhat surprising that in the Internet, as a source, went ahead of the workers knowledge.

The research will be continued in 2015 as part of the statutory activity, with an extension to the internationalizing companies, as it was highlighted in the introduction, the author carries out a parallel study on the process of Polish enterprises internationalization.

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