

KNOWLEDGE AND INFORMATION IN THE PROCESSES OF MANAGING THE ORGANIZATION CASE STUDY

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Abstract

The article concerns a case study of the use and application of knowledge and information in the company. In the first place, the assessment of knowledge and information management processes was carried out, and the main goal of the research was to identify the benefits of effective management of these resources in the company. A method of standardized interview was used to obtain data, which was carried out with 40 employees of the company. Based on the interviews, it can be concluded that the communication processes, as well as knowledge and information management are perceived by the respondents. They are also aware of the possible benefits of proper knowledge and information management. There are some barriers and disruptions in the knowledge management processes in the analyzed company. In order to reduce them, several options for solving these problems and improving management processes were indicated.

Keywords: *knowledge, information, management, processes*

JEL Classification: *D88, D83, M12*

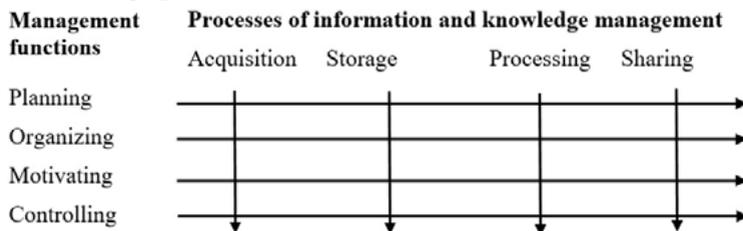
1 Introduction

Information and knowledge resources located in the company are not static, are constantly growing and are subject to modification (Figurska, 2014; Borowiecki & Kwieciński, 2003). They require continuous verification and processing, as well as coordination and cooperation with the rest of the resources on which this knowledge and information have an impact (Burkiewicz & Zaborowska, 2011). Large enterprises have their own databases and data warehouses, where data and information are stored and processed. In companies focused on innovation, knowledge is created on the basis of conducted research and experiments (Cierna et al. 2017, Kielbasa 2016b). Definitely, it requires devices that are able to store and process data, as well as qualified employees who have knowledge in the field of information management and the use of specialized software. Company conducting scientific research are equipped with laboratories in which experts and scientists are hired (Fazlagić & Jan, 2014). One of the definitions of knowledge and information management is that it is a conscious behaviour of people aimed at optimizing the role of knowledge and information in achieving goals by an organization (Kowalczyk & Nogalski, 2007).

Nowadays, running a company requires knowledge of information management processes, as well as knowledge that is the result of skilful use of information (Galant & Perechuda, 2005). It should be remembered that knowledge is created by various methods. It is often difficult to codify, as in the case of tacit knowledge, or has many meanings - and therefore it can be interpreted depending on the individuals point of view (Morawiecki, 2006; Drangert et al. 2017). Knowledge and information are quickly obsolete (with the information becoming obsolete faster), hence the need for constant supplementing in any organization. Knowledge can materialize, and thus externalize in products and services, and codification processes make knowledge structure in technologies, teams (organizational learning), as well as individuals in the organization (tacit knowledge, mentoring, coaching) (Niedzielska & Perechuda, 2004, Świgoń, 2012).

At each stage of the organization management, knowledge and information processes can be distinguished. The implementation of each management function requires knowledge of the collection, storage, processing and sharing of knowledge and information (Figure 1).

Figure 1 **Relations between management functions and information and knowledge processes**



Source: Griffin, 2017; Roman, 2012.

Knowledge is an essential component of operational, tactical and strategic management, thanks to which the level of uncertainty in decision-making processes can be reduced (Róžański, 2013). The operational dimension is defined as a process with the task of creating formal knowledge that can be articulated and stored (eg. in the form of documents), and tacit knowledge that is impossible or very difficult to codify (eg. employees experience, attitude, character traits, skills, etc.). The operational level requires the knowledge necessary for everyday operations that will quickly become obsolete (Griffin, 2017; Gierszewska, 2011). The second is the tactical dimension, which is based on the use of knowledge and information to achieve the medium-term goals of the organization, enabling adaptation to the competitive environment (Griffin, 2017; Borowiecki & Romanowska, 2001). In turn, the strategic dimension refers to long-term goals, such as the creation of a knowledge-based organization and a learning organization, in which the implementation of economic goals does not exclude the development of organizational culture. The strategic level is the knowledge necessary for long-term management, allowing adaptation to changes in macro-environment (Roman, 2012; Griffin, 2017).

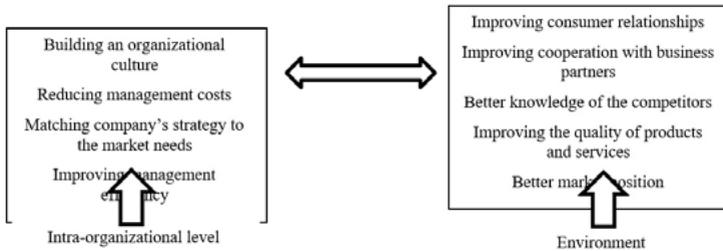
Knowledge and information management is a continuous process, in which several “subprocesses” can be distinguished, ie.: seeking and acquiring knowledge, collecting and storing, processing and enriching knowledge, then disseminating knowledge and sharing (Kłak, 2010). The process of collecting and using knowledge and information is also of significant importance in company management. These processes occur in every organization, but not all of them are clearly distinguished. In large enterprises and corporations detailed phases of knowledge and information management can be divided, such as: 1) Acquisition of information and knowledge, 2) Selection, 3) Storing and collecting, 4) Processing and adaptation for the needs of the company, 5) Codification, 6) Transfer, 7) Developing and

creating new knowledge, 8) Sharing knowledge, 9) Updating knowledge (Probst, Raub & Romhardt, 2002, Kokavcová, 2009).

Undoubtedly, knowledge and information are key factors for innovation and competitiveness of companies today (Prus P., Drzadzynska K., 2017). Companies are constantly looking for innovative solutions and ways to improve the quality of offered services and products. Thanks to the knowledge and information management skills, not only improve the processes of human resources management in the enterprise can be improved, but above all, the potential in employees can be used in a better way (Morawiecki, 2012). It allows to reduce the costs of managing the organization, and also contributes to building and shaping the image of the company, including its products and services on the market (Nonaka, 2007).

Knowledge and information management brings many benefits to the organization that can be distinguished at the intra-organizational level and the benefits of the environment (Figure 2).

Figure 2 Benefits of knowledge management and information for the organization



Source: Błaszczuk et al., 2003.

At the inter-organizational level, many benefits can be indicated, among others: the possibility of developing a strategy that takes into account the results of research and opinion of experts, which will be tailored to the clients' needs. Taking into account the importance of knowledge and its exchange contribute to improving the relationship between employees, supporting employee development and improving the motivation system. This can lead to the stimulation of innovation and creativity of employees and managers, and in a further stage to the creation of a basis for building a learning organization and organizational culture (Cierna et al. 2017). The benefits of effective knowledge and information management are also better organization of information flow. What's more, faster acquisition of information saves time and costs of process management in the company

(Davenport & Prusak, 1998). The ability to manage knowledge and information improves the flexibility of business management, which results in a faster response to market changes (Griffin, 2017). Knowledge management processes influences not only the organization, but also the environment, such as improving customer relationships (Figure 2). This, in turn, translates into better matching of the offer to the needs of customers and improvement of the quality of products. It is also important to improve relations with market partners and other market participants (Wawrzyniak, 2003).

This are certainly not all the benefits of managing knowledge and information processes in an organization. Taking into account external benefits, it can be noticed that the perception of the importance of knowledge management processes has a wider dimension. According to Kielbasa (2016a) and Kalinowski (2011), knowledge lies at the heart of sustainable management, not only in the organizational dimension, but also broader, covering the social context (rural areas, urban areas). Regardless of the location and range of business, sustainable management embraces not only economic benefits, but also social needs, as well as the natural environment. It is necessary for this purpose to acquire knowledge and information in the field of sustainable management and sustainable development processes (Wielewska et al. 2017).

The aim of the paper was to identify and assess the functioning of knowledge management processes and information in a selected company, as well as to analyze the benefits of effective management of these resources. The problem presented in the article has a form of a case study. It is a research method that allows identification and analysis of the causes of a given phenomenon (problem), and also allows to observe its results. The aim of the case study was to analyze the problem based on the opinions of employees, managers and owners of the company, and to develop proposals for solutions to the encountered problems.

2 Data and Methods

In order to collect empirical data an interview was conducted in 2017 with a standardized questionnaire. The research was carried out among employees of a company producing dump trucks, containers, cold stores and other equipment for trucks and vans, manufactured for domestic and foreign markets. 40 employees of the company from various organizational levels took part in the interview.

The analyzed company was founded in 1984 and currently employs 86 people. The company consists of several organizational units involved in the production, trade, marketing, maintenance, accounting and quality control department. The managers are directly responsible for individual departments. The production

manager is responsible for the construction department, which deals with the creation of the projects. On its basis, products are made in the production department. In the supply department, purchases necessary for the operation are made, as well as orders. Production workers are divided into brigades that deal with the performance of individual operations, ranging from details - to the assembly of ready-made equipment on a specific chassis. The sales department deals in acquiring and servicing customers, accepting orders and issuing finished products to recipients. The quality control department is an independent cell whose task is to control components made by employees and to evaluate finished products. The maintenance department ensures the proper operation of machinery, equipment and tools. The marketing department deals with market research, builds the company's image and advertisement.

The organizational structure of the researched company has a linear and hierarchical form. The owner makes the key decisions based on information provided by the managers of individual departments. This type of organizational structure enables making quick decisions and facilitates the coordination of activities between job positions in particular departments. The linear structure works in companies that produce similar products, according to established procedures and operating diagrams. A threat may be the lack of taking the knowledge of specialists into account in the decision-making process, as well as the distortion of the information provided. This kind of structure works well in the processes taking place in the organization, enables the company to operate efficiently and effectively, allows for quick response as well as flexibility against market changes. It promotes the dissemination of knowledge and information. Moreover, it allows for quick response and ease in acquiring the necessary information to perform employee duties.

3 Results and Discussion

40 employees of the discussed company took part in the interview. These employees occupied various positions, ranging from executive employees on the production line and foremen, to managerial positions. For the purposes of the analysis, respondents were divided into 3 groups: 1) Employees and line managers (foremen); 2) Employees and middle management (heads of the departments); 3) Directors and owners of the company. In the first group there were 23 people, in the second group 12, while the third group consisted of 5 people.

First, the knowledge and information management processes were evaluated, and then the identified benefits resulting from the proper management of knowledge and information in the examined company were analyzed.

The first stage in the knowledge and information management process is acquisition. This is important from the company point of view and its operation on the market in achieving a competitive advantage. The speed of acquiring reliable information determines the achievement of a good market position. In the surveyed company, many sources of knowledge and information can be indicated. According to the interviewees and company owners (40%), information obtained from clients is the most important in the process of setting operational, tactical and strategic goals. Relevant in the opinion of the respondents may also be information from the competition (15%), obtained by observation and analysis of market messages sent by competitors. In the opinion of the respondents, significant knowledge is also found in company databases (13%), and on the Internet (15%). Some of the respondents (17%) also pointed to the need to seek and obtain knowledge about innovations (new technologies, new solutions).

An important aspect in the process of knowledge and information management is its collection and proper storage. There are many ways to store it. In the opinion of the employees, the best way to gather knowledge and information is computer networks (48%), followed by paper documentation (15%) and databases (10%). The respondents also indicated the importance of tacit knowledge (27%), because according to them considerable knowledge resources is accumulated in the minds of people, in their experience and cognitive processes.

Next important stage in knowledge and information management is processing and developing. It is undoubtedly one of the most difficult processes, often requires large financial outlays, as well as understanding the methods of effectively transforming information into knowledge, and the externalization of tacit knowledge. It often requires a change in mentality and approach to learning processes (Drangert et al 2017). The willingness to acquire knowledge by employees is an important factor in the development of the organization and without this building learning organization is difficult (Nagyová et al., 2016). In the surveyed company, 29 respondents (72.5%) declared motivation to develop knowledge through learning and transferring their knowledge to other team members. However, 11 respondents (27.5%) did not show any interest in further development. These employees stated that they do not have the opportunity to develop knowledge for financial reasons (training courses). As far as the information and knowledge processing is concerned - the company uses computer programs (mainly accounting) and systems that create databases (including customer databases). These tools allow the processing of data and information for the needs of senior and middle management as well as line managers (i.e. foremen). The transfer of knowledge by experienced employees may lead to the transformation of a tacit into explicit knowledge. This contributes to increasing the efficiency of

teams' work and, consequently, to improving the quality of products and services offered. Over a half (55%) of the surveyed employees and managers of the company received help from more experienced employees in the past, who shared their knowledge with less experienced young team members. The remaining (18 respondents) gave a negative answer, indicating lack of time and motivation to share their knowledge.

In turn, in the processes of transmitting and sharing information according to the respondents, e-mail (30%) and direct conversations and meetings with company colleagues (30%) are most often used. The next position is the internal network - Intranet (25%), then the database (15%). The speed of the transfer of information is important in this process, because it can quickly outdate and after some time requires re-analysis and verification.

According to the employees and line managers, the most important is knowledge and information in the processes of organizing work (Table 1). In the second place the processes of planning were placed. According to this group, the most important is the knowledge that allows to streamline operational processes in the company. For the employees and mid-level managers, the most important is knowledge in the processes of organizing the teams work, and knowledge supporting the processes of controlling the results of work. According to this group, knowledge that improves tactical and operational management is the most important. According to the information obtained from the directors and the owner of the company - they are primarily looking for information and knowledge for planning. Their task is to prepare long-term plans, and so the strategic management knowledge is important at this level (Table 1).

Table 1 The importance of knowledge and information in the implementation of management functions, in the opinion of respondents [N = 40], the assessment made by respondents on the scale from 0 to 1

Specification	Employees and line managers	Employees and middle management	Directors and owners
	n = 23	n = 12	n = 5
Planning	0,20	0,30	0,10
Organizing	0,10	0,10	0,40
Motivating	0,40	0,40	0,20
Controlling	0,30	0,20	0,30

Source: Own research.

Communication plays an important role in the implementation of all management functions as well as information and knowledge management. Effective communication has a big impact on work efficiency and its result. Over a half (55%) of the interviewees positively assessed the communication processes in the organization. However, almost 1/3 (30%) were of the opinion that there are barriers and disruptions in the communication process. According to them, the result of these barriers is that not all relevant information arrives on time and in the right form. The remaining respondents (15%) were negative about the assessment of communication processes in the company, indicating frequent disruptions and lack of feedback.

Recognizing the importance of knowledge and information undoubtedly brings many benefits to the organization. These can be measurable benefits (eg. reduction of production costs, acquisition of new customers), but also unmeasurable (eg. better atmosphere at work, greater trust of employees to the management, better communication with clients, etc.), occurring at every level of the company. These benefits may include the level of operational management, tactical level as well as long-term management (Griffin, 2017). The benefits of knowledge and information management can be analyzed at the organizational level, as well as in the environment. The latter concern, among others is improving relationships with other market participants (customers, competitors, business partners), as well as striving to achieve the desired position in the market.

Taking into account the surveyed company and respondents' answers, several groups of benefits resulting from knowledge management can be identified. These benefits can be divided into internal and external (surroundings) (Table 2).

Table 2 Identification of the benefits of knowledge and information management in the company in the respondents' opinion [N = 40], the assessment made by respondents on the scale from 0 to 1

Specification	Employees and line managers	Employees and middle management	Directors and owners
Intra-organizational benefits	n = 23	n = 12	n = 5
Tailoring strategies, visions and missions to market needs	0,80	0,70	0,10
Increased team work efficiency	0,10	0,30	0,40
Saving time	0,20	0,20	0,60
Improving management processes	0,60	0,10	0,30
Reducing management costs	0,70	0,40	0,20

Specification	Employees and line managers	Employees and middle management	Directors and owners
Better cooperation in a teams	0,30	0,80	0,70
Increased employee competence	0,50	0,60	0,60
Improving employee motivation	0,40	0,50	0,50
Benefits for the external business environment	n = 23	n = 12	n = 5
Adaptation to the customers' needs	0,20	0,20	0,10
Improving the quality of products and services	0,10	0,10	0,20
A better position relative to the competition	0,40	0,30	0,30
Feedback from the environment	0,30	0,40	0,50
Building a positive image	0,50	0,50	0,40

Source: Own research.

The data presented in Table 2 shows that for employees and line managers the greatest benefits of managing knowledge and information in a company is to increase the efficiency of work in teams, thanks to exchanging and sharing information and knowledge. As a result, it is possible to deliver better quality products to the market. In turn, for the group defined as “employees and middle management”, the biggest benefit was time saving (mainly the implementation of production processes and team management), as well as better adjustment to market needs and customer satisfaction. However, when analyzing the responses of the company’s directors and owners, it can be noticed that knowledge and information are useful primarily in strategic planning processes, including shaping the company’s vision and mission. This also leads to a better adaptation to the needs of customers on the market (Table 2).

4 Conclusions

Proper management of knowledge and information in the company leads to many positive changes. Knowledge and information management can affect both business image, the perception of a company as a learning or innovative one, as well as processes occurring within the organization.

Taking into account the perception of the benefits of effective knowledge and information management, it can be noticed that for the employees and line managers in the company, the most important was to improve the work of teams and save time. For medium-level employees and managers it was important to improve management processes. And for the owners of the company the greatest benefit was a better matched strategy, mission and vision statements. Despite the differences in the assessment of intra-organizational benefits, all the respondents perceived the same benefits for the external business environment. It was an adjustment to the market and improvement of the quality of products and services offered. Therefore, it can be concluded that despite different perceptions of benefits, the result of efficient knowledge and information management is the improvement of product quality and adaptation to market needs.

However, there are many barriers to the implementation and management of these processes, which were also noticed in the company under the study. Mainly it was the reluctance of the employees to adapt to new rules, or to share their knowledge, inappropriate style of management or discouragement due to the lack of visible (tangible) and immediate results of knowledge management. The following conclusions can be made on the basis of the tests:

- The greatest importance in the process of knowledge management according to employees was information obtained from customers. This type of knowledge should be taken into account in the first place and constantly updated,
- Knowledge and information were stored in the company in databases, however, according to the respondents, tacit knowledge is more important, and therefore the experience and knowledge of employees was the most valuable asset,
- Half of the respondents wanted to share their knowledge and help other colleagues, just as they were assisted and mentored by older employees,
- Almost half of the respondents assessed the communication processes in the company well.
- Based on the analysis of problems diagnosed by the respondents, some recommendations were made to improve the knowledge and information management processes in the surveyed company:
 - It is advisable to develop and implement an internal training system for employees and management,
 - It is recommended to apply a knowledge development system, along with a system of motivating employees to take these activities,
 - It is advisable to improve “up” and “down” communication processes. Development of the “up” and “down” communication system will allow both the

acquisition of knowledge from employees, as well as the formulation of understandable messages essential for the proper performance of duties by employees of different levels in the company,

- It is recommended to improve communication processes using the “feedback” system. Introduction of such a system will oblige employees to provide feedback at all levels of the company.

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