

Available online at www.sciencedirect.com





Procedia Manufacturing 3 (2015) 674 - 680

6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015

Human resources management in the system of organizational knowledge management

Jarosław Piotr Lendzion

Lodz University of Technology, 116 Żeromskiego Street, 90-924 Lodz, Poland

Abstract

Currently, the most important strategic resource company is the knowledge, consciously acquired, created and disseminated through a variety of methods, focused on the development of appropriate behavior of employees and supporting the development of information technology processes. Therefore, the challenge in front of which stood the company is to focus efforts, treatments and care for the acquisition and maintenance in the company of people with unique powers to ensure an increase in efficiency mainly through innovation, thanks to extensive capabilities of converting the existing stock of knowledge to new knowledge. The publication refers to the social, organizational, and cultural aspects of knowledge management. The article shows that a key factor in the success of any organization is to create conditions for the development potential of the competence of employees. Therefore, the author focuses on the role of the knowledge management in the human resources management, building the company's competitiveness through knowledge and key skills of employees, as well as on the process transformation human resources in intellectual capital. The article also been taken into account cultural conditions of knowledge management, and above all, how to construct a focused corporate culture knowledge. The publication also contains the results of research on a group of 37 Polish companies on the implementation of the HR function in the knowledge-based enterprises.

© 2015 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer-review under responsibility of AHFE Conference

Keywords: Human resources management; Knowledge management

1. Introduction

Knowledge management is one of the most quickly developing concepts of management. It is the effect of the orientation on knowledge in management and of the era of business based on knowledge. Nowadays knowledge has become a key resource of the organization. It is a basic element of people competencies (building them up together with attitudes and skills) and a basic element of human capital. People are the basis of knowledge management

system. It is due to the fact that they are the ones who run processes connected with identification, creation, obtaining, purifying, protecting and transferring the knowledge. People are intellectually engaged in all these activities and the level of this engagement and the correctness of thinking can be weakened or strengthened by the influence of the different factors. Those factors which influence directly the shape of social working environment, behavior of people, individual and collective processes of thinking and particularly health, physical and intellectual condition, a hierarchy of human values, norms and attitudes managing their behaviors, loyalty and mutual trust, level of collectivity and innovativeness are particularly important.

2. Management of organizational knowledge

In the literature it is possible to find many definitions of knowledge management. It is the most common to define knowledge management as: a process of creating and using knowledge to improve the effectiveness of the company activities; management of information, knowledge and experience available in the organization that is: a creation, a gathering, a storage, making available and usage which aim is to ensure a future development of the organization based on the existing resources; stimulating the employees to share knowledge by creating a proper working environment and systems of knowledge transfers in the whole organization. According to K. Harris "knowledge management is a discipline which promotes a complex attitude to identifying, managing and sharing all the information resources of the company. These resources include data bases, documents, policies and procedures but what is the more important, the experience and skills not expressed in the explicit form possessed by the employees. The knowledge management includes also a development, an introduction and a maintenance of a proper technical and organizational infrastructure which enable the knowledge sharing. A choice of the proper information technologies and suppliers, which would enable the creation of these infrastructures is an additional element" [1]. J. Schueppel considers that "knowledge management means organizing knowledge flow between two poles: generating knowledge and applying knowledge. This process happens periodically. The application of knowledge allows for its further generating" [2]. M. Strojny proposed a definition of knowledge management from the point of view of two dimensions: operational and strategic [3].

Knowledge management in the operational dimension is a process which means a creation of formal knowledge and quiet knowledge and then processing, gathering, protecting and practically applying it in order to achieve the defined aims.

Knowledge management in the strategic dimension is an art of creating an organization based on knowledge and open to it, integrating the usage of knowledge, strategy of a company, people, organizational culture and technology around an effective usage of knowledge.

Knowledge management understood in this way is a solid basis for creating a system of knowledge management in the organization which is adjusted to its specificity and implemented in practice ensures an effective usage of the possessed knowledge and other resources of the company.

While analyzing the definitions of knowledge management it can be noticed that they pay attention mainly to the necessity of the following activities:

- 1. Treating knowledge resources as an important resource both for the strategic activities, for the long-term ones and for daily activities within the whole organization,
- 2. Identification of knowledge resources,
- Creating an environment favorable to knowledge creation e.g. by motivating employees and creating the patterns which encourage to generate new solutions.

3. Socio-cultural aspects of knowledge management

Knowledge management answers to some extent the question how to manage human resources in order to make people "a driving force of the company's development".

According to I. Nonaki and H. Takeuchi it is necessary to fulfill five conditions to make employees play a key role in the company's development by creating organizational knowledge [4]:

1. intentions,

- 2. autonomy,
- 3. instability and creative chaos,
- 4. redundancy and desirable diversity.

The intentions in the economic practice are referred to as a strategy. The main aim of the strategy in the process of knowledge creation is a definition what kind of knowledge is needed in the system of management.

Autonomy is directly linked to human resources management. Every member of the organization must have the autonomy guaranteed to an extent which is possible in the given conditions. Thanks to the autonomy, the employee has more original ideas and is not afraid of sharing them with managers. The application of this rule is also favorable to a better information flow within a company.

Instability and creative chaos boost interactions between an organization and an external environment. The violation of the existing structures and processes is a condition for the company's development or generally for the "development" in the general meaning of this word. Instability and creative chaos that is the chaos which creates basis for the development and not for the destruction, are the main motivators which cause both an organizational and an individual change.

Redundancy is understood here as the existence of the information which goes beyond direct, operational needs of the organization members. The redundancy refers usually to the hidden knowledge. In case when employees have more information than they really need for their job, they are more likely to accept changes and they learn more easily. They are also more creative because due to the possessed knowledge they are able to perceive an organization as a system.

The desired diversity is the fifth condition to create knowledge in the organization. The interior of the organization can be as diversified as the environment in order to allow the company to function on the market. If the employees differ as far as the skills and knowledge are concerned, they are able to solve the problems better.

The aforementioned five conditions of creating the knowledge in the organization are directly linked to human resources management. The human resources management in the companies based on knowledge requires a remodeling of basic sub functions of human resources management as the managers will deal more often with people who decide themselves about their aims, who motivate themselves, organize and control. Such employees are called knowledge workers.

The term "knowledge worker" refers to a high class specialist who has unique knowledge and competencies. The appearance of knowledge workers in the organizational structure led to an evolution of human resources management basis towards such values as: competencies, knowledge and intellectual capital.

T. Davenport presents the following definition of knowledge workers [5]:

- They have a high level of specialist knowledge, education, experience and creation, dissemination or practical usage of knowledge are the most important aims of their work;
- They can have a high level of abstract, low level of routine and are characterized by a constant need to update their knowledge;
- 3. They show a need for autonomy, trust, evaluation of work, they need to understand a context and to learn by experience; they understand the need of exchanging ideas with experts.

Specialist knowledge and education cause four consequences for human resources management:

- 1. Allows them for an unlimited vertical mobility,
- 2. Increases their sense of own values and self-confidence,
- 3. Causes higher expectations towards an employer,
- 4. Changes the structures of power.

The organizational culture is an important element of knowledge management. Some of its designates, particularly the values deriving from it, can be favorable for the implementation of the concept of knowledge management (e.g. a proper communication) and some are a barrier for it (e.g. a lack of trust). The organizational culture is a guide on the accepted behaviors, a definition of norms and standards. "The creation of the organizational culture is one of the most important and at the same time the most difficult tasks which a person coordinating knowledge management must face. It requires a skill to transfer own determination and conviction on the meaning of knowledge in the organization to other employees, make them engage fully and trust that the true competitive gain can be based on knowledge" [6]. In the knowledge already possessed. The creation of the barriers which make the knowledge flow more difficult or impossible is a result of adjusting to the improper organization culture in the company. The creation of a creative environment is a necessary success factor in companies based on knowledge. Such an environment is characterized by the following skills:

- 1. Capacities to share knowledge,
- 2. Skills to change,
- 3. Flexibility,
- 4. Speed of reactions.

The knowledge management means e.g. a creation of a proper organizational culture which allows for a transfer, conversion and acquiring knowledge by the employees.

4. Implementation of personal function in knowledge-based companies

Knowledge management system is a sub system of an organization which integrates and supports the remaining subsystems of a company e.g. quality management system, system of innovation and participation management, information and communication system, management of R&D activities, controlling system. This system integrates and supports but is also supported by decisional systems of management such as: strategic management, human resources management, marketing management, finances management, logistics management, operational management and others. This system is created by the remaining organizational subsystems which in order to make it effective should be each configured taking the aims of knowledge management into consideration. While comparing the distinguished areas of knowledge management is a subsystem of knowledge management. It is a "carrier" of this system and simultaneously creates a context of knowledge management determining the effectiveness of processes with the knowledge participation. That is why the system of human resources management already at the stage of implementing knowledge should be adjusted to its aims, tasks and needs.

It must be underlined that the majority of the knowledge management system implemented by a company is inspired by human resources management units which start to fulfill new roles [7]:

- 1. Cooperate closer with managers of the different levels of management,
- 2. Inspire people, design different solutions in the field of human resources management,
- 3. Play a role of a consultant and an advisor for all employees.

The units of human resources management also supportstrategies which serve to implement knowledge management programs. The support is connected with such actions as [8]:

- 1. Creation of knowledge management teams,
- 2. Initiating knowledge management teams,
- 3. Defining rules of knowledge management,
- 4. Updating knowledge management programs.

Changes in the system of human resources management should include particularly the following elements:

- 1. Connection of strategy and human resources management programs with the aims which result from the strategy of knowledge management,
- 2. Introduction of a selection of possibilities to attract and employ talented employees into the system and a creation of the data bases about the talents and knowledge workers. Adjustment of the selection procedures to the requirements of knowledge management requires inserting the tasks related to the knowledge management into the job descriptions and the features of intellectual capital (or competences) of employees adequate for people working in knowledge organizations into the job specifications into job specification.
- 3. Making flexible the organizational structure by limiting formalization, delegating decision powers, flattening the organizational structure and implementing team form of work organization as well as redesigning the system of employees' participation according to the new conditions which are supposed to enable people to participate actively in the processes connected with knowledge.
- 4. Introduction into the organizational structure a broker of knowledge, who- depending on the external and internal conditionings, the strategy of the organization knowledge and the organization size is either a manager or a knowledge management team. One person or an organizational unit can be the broker whose role is to transfer knowledge. The existence of the broker is justified by the access to the sources to which the receivers normally do not have the access.
- 5. The change of the introduction programs for newly employed people as well as for people working only temporary for the organization introducing the functioning of knowledge management system.
- 6. The system of employees training must be based on a conviction that it is necessary to learn in every place at any time. The system of employees' trainings must become a configured network of purposefully used methods- from self-education, by e-learning to learning in teams, formal and informal coaching and mentoring. Learning by doing and experiments, instructions provided by the experienced employees and the participation of practitioners in the communities become important elements.
- 7. Implementation in the system of employees' evaluations of the criteria which allow to assess the input of employees in knowledge management and the implementation of tasks resulting from it.

5. Practice of knowledge management in Polish companies

In 2014 the surveys were conducted in the group of the Polish companies which had already introduced or were introducing the system of knowledge management. More than a half of these companies function within the innovative branches. In almost 70% of the companies human resources department is responsible for implementing and supervising the system of knowledge management and only in case of 16% of the companies it was done by the IT department. Such results prove that the system of the knowledge management is strongly integrated with the systems of human resources management and that IT departments are only responsible for the design of IT tools which support knowledge management. In few cases such departments as: organization and legal department, R+D department and marketing department were responsible for knowledge management.

62% of the companies declared a possession of a personnel strategy which assumptions include the requirements of knowledge management system. 85% of the examined companies considered employees to be the most important source of knowledge followed by external trainings (68%), research and development activities conducted by own

R&D department (47%) and a participation of employees in conferences, fairs and branch events. These results clearly show that employees are the basic elements of knowledge management.

The undertakings oriented on the permanent increase of employees' competencies were the most important investments in the framework of knowledge management in the analyzed companies (66%) together with the development of team work (53%) and mentoring (46%). It confirms the thesis that knowledge management is oriented on an employee and the development of their competencies.

Treating employees as the basic source of knowledge requires from the companies a permanent development of their creativity. More than 80% of the surveyed companies declared using the methods to stimulate the creativity of employees. The companies declared a usage of the different methods of brain storming, ideas competition, Kaizen.

In case of 82% companies which participated in the surveys these methods are applied for all employees and in case of 18% they only refer to selected employees, mainly those who show creativity, responsibility and who aim to have more freedom at work.

In 70% of the companies which were questioned the processes of employees' selection was oriented on attracting people with high potential of competencies. The selection methods which are the most common in these companies are: Internet advertisements (86%), press advertisements (76%) and recruitment at schools and higher education institutions (57%). 47% use other forms of selection such as external recruitment, employment of the best trainees and apprentices, help of temporary work agencies.

80% of the analyzed companies possess the system of performance review. Among those companies which do not possess such a system 25% in planning to introduce it. Employees competencies are the most the common criterion of the review (80%), which is in line with the companies declaration that their system of knowledge management is oriented first of all on the development of the employees' competencies.

The majority of the companies use a complex system of motivating the staff which in the majority of cases is oriented on the development of the employees' competencies and keeping the best employees and an the increase of their engagement at work. Trainings (71%), vertical promotion (67%) and levels (57%) play a very important role in the system of motivation next to financial bonuses (73%) and the increase of the basic salary.

In the opinion of 80% of respondents both the applied motivation system and the system of performance reviews take into consideration acquiring and sharing knowledge among the employees.

The companies where the research was conducted often underlined that staff competencies and their development are vital both in the system of human resources management and knowledge management. 52% of the companies declared the usage of competency management. All the companies underlined the fact that the procedures of competencies management were designed in such a way to ensure a company a possibility to learn. 90% of the companies using the competencies of staff. 76% declared a possession and a usage of the effective methods of keeping the employees with high potential who are a base for the system of knowledge management.

The participation in trainings is one of the methods of investing in employees. Trainings are also one of the basic sources of knowledge in the surveyed companies. In case of 45% of companies the employees participate in the trainings once per quarter and 5% of the companies admitted that their employees never participate in trainings. In 30% of the companies the participation in trainings is dependent on the individual or team needs, the needs of the unit or is dependent on the working environment.

In the system of knowledge management the organizational culture oriented on the cooperation between the employees, the development of their creativity, independent activities as well as acquiring and sharing knowledge play an important role in the system of knowledge management. 85% of the companies confirmed the possession of the organizational culture oriented on cooperation. In the remaining cases the organizations put emphasis on the competition among the employees.

The organizational structure exerts a strong impact on the organizational culture and the social climate in the company which support the knowledge management. 90% of the companies declared that they possessed an organization structure which ensures a closeness and openness of relations, which is favorable for sharing knowledge. As it was underlined before, more than 65 % of the surveyed companies possess a modern organizational infrastructure.

The level of informing the employees about the problems which are the key ones for the company development influences also the trust and cooperation which are necessary for an effective knowledge management. In case of 80% of companies, the employees are informed about the company's strategic aims. Such information is given during the meetings of the managers with the staff. Such meeting are organized in 95% of the companies. In the majority of cases they are organized once a year (35%).

The system of knowledge management is supposed to enable a change of the hidden knowledge of employees into the explicit knowledge. In order to release the hidden knowledge the following methods can be used: allowing the employees to present ideas and to include them in the decision-making process as well as developing the different forms of team work. Up to 95% of the companies are oriented on the team work.

In 92% of the companies the employees have a possibility to present their own ideas and 86% of the employees are allowed to participate in the decision-making process. The participation of employees in the decision-making process of the surveyed companies is connected first of all with their participation in team projects. Both the structural decisions and those related to the launch of a new product/ service are consulted with the employees.

84% of the companies declared treating the employees not as the human resources but as the intellectual capital of the company.

6. Summary

The knowledge management and the human resources management have a common part. In case of the knowledge management it is a part connected with human resources management, in case of human resources management- treating people as a capital. The knowledge management answers to some extent a question how to manage human resources in order to make employees the driving force of the company's development. The knowledge management is a chance to increase the effectiveness of human resources management in the company as it satisfies the staff needs of self-realization. That is why the employees are more motivated to work and as the effect it is possible to better recruit, choose, train and improve the members of the organizations.

References

- [3] B. Godziszewski, M. Haffer, M. J. Stankiewicz, Wiedza jako czynnik międzynarodowej konkurencyjności w gospodarce, TNOiK, Toruń 2005, p. 180
- [4] I. Nonaka, H. Takeuchi, Kreowanie wiedzy w organizacji, Poltext, Warszawa 2000, pp. 99 110
- [5] T. Davenport, Zarządzanie pracownikami wiedzy, Wolters Kluwer, Kraków 2007, p. 15
- [6] D. Jemielniak, A. K. Koźmiński, Zarządzanie wiedzą, Wydawnictwa Akademickie i Profesjonalne, Warszawa 2008, p. 411
- B. Mikuła, Dostosowanie systemu zarządzania zasobami ludzkimi do wymagań zarządzania wiedzą, www.ementor.edu.pl/artykul_v2.php?numer=16&id=339
- [8] M. S. Staniewski, Zarządzanie zasobami ludzkimi a zarządzanie wiedzą w przedsiębiorstwie, Vizja Press&IT, Warszawa 2008, p. 63

^[1] M. Strojny, Zarządzanie wiedzą. Wstęp do dyskusji, Personel, 2001, nr 1