KNOWLEDGE MANAGEMENT AND INTELLECTUAL CAPITAL OF THE ORGANISATION

Robert BALCERZYK
General Tadeusz Kościuszko Military University of Land Forces in Wrocław; robert.rb@interia.pl,
ORCID: 0000-0002-5462-6901

Abstract: The main purpose of the research presented in the article was the diagnosis of the talent management process in small and medium-sized companies in the Lower Silesia Voivodship. To achieve the goal, the first part of the article explains the meaning of the term "talent" in the literature of science about management. Next, on the basis of the conducted research (in two Universities), an attempt was made to answer the questions: how do companies develop the talents of their employees and how do they acquire talented staff. Based on the research, conclusions have been presented and can be used to improve the discussed talent management system.

Keywords: talent management, talent.

1. Introduction

The end of the 20th century was the end of the industrial era; organisational material capital and land possession lost value. In contrast, in the 21st century, intellectual capital, knowledge, information and knowledge management gained value. They now constitute the key resources of any forward thinking company because they give competitive advantage. The paradox lies in the fact that intellectual capital, knowledge and skills are not entirely owned by the company, but, above all, are shared equally with its employees, customers and collaborators (Drucker, 1999, p. 13). In the knowledge-based economy, the existence of any enterprise depends on its information technology, which includes much more than just the infrastructure (computers and their software), but also the know-how and, consequently, intellectual capital.

Of the three components of organisational capital – structural, customer and human, the last is a combination of employee and manager competences. Managerial understanding of the essence of human capital affects the manner of an organisation’s management, the vision and strategy of the company. As its most valuable resource, employees should develop together
with the enterprise employing them to create an intelligent, knowledge-based organisation. Herein, capital assets include the organisation’s white-collar and blue-collar employees.

In contemporary organisations, knowledge management has a special meaning. With constantly growing knowledge-based resources, it becomes more and more difficult for managers to function alone (organisation management). Terms such as 'knowledge work' and 'knowledge worker' are emerging. Peter Drucker is considered the forerunner of these concepts (Drucker, 2011, p. 406). It was he who initiated the trend that material goods, land or labour lose their importance in relation to knowledge resources, information or knowledge workers. According to Peter Drucker, "the essence of management is the productive use of knowledge. In other words, management is a social function and as a practice, management is undoubtedly a liberated art".

2. The concept of knowledge management in the literature on management sciences

In the literature of the problem, the concept of knowledge management is defined in various ways. In the Universal Encyclopedia, knowledge is defined as "the totality of reliable information about reality along with the ability to use that information". Herein, information (Latin: informatio) means representation or image. Knowledge and information are interdisciplinary terms that are differently defined in various fields of science.

According to K. Materska, "knowledge is awareness, consciousness or understanding gained through experience or study." It is also "the state or fact of understanding something, the sum of everything that has been experienced, discovered or learned." Other sources, however, state that knowledge is the totality of information. It is created and used in the consciousness of its owner" (Materska, 2007, p. 42).

M.J. Stankiewicz states that "knowledge is a changing mixture of experience, contextual information values and expert insight, providing a framework for assessing and connecting new experiences and information. It is created and used in the consciousness of its owner" (Stankiewicz, 2006, pp. 117-118).

P. Drucker believes that "knowledge is always connected to a person, is carried, created, justified and perfected by that person and applied, taught and passed on to others and used by a person for good or bad purposes" (Drucker, 2002, p. 405). P. Drucker defines knowledge as an effective use of information in action and is the first to appreciate the importance of knowledge in the economy (Drucker, 1999, p. 43).

A.K. Kozminski and D. Jemielniak's state that: "Knowledge is an organised resource of information that we remember, record and store for use in the pursuit of our personal goals, or in relation to an organisation – its missions and organisational goals. Knowledge is
sometimes understood narrowly, as scientific or technical knowledge (...)” (Koźmiński, Jemielniak, 2008, p. 256). A. Sopińska, P. Wachowiak devised the following model of knowledge management in a company (Figure 1).

Figure 1. Model of knowledge management in an enterprise. Adapted from: “Modele zarządzania wiedzą w przedsiębiorstwie” by A. Sopińska, P. Wachowiak, E-mentor 2006, No. 1

The first stage of knowledge management is the acquisition of explicit knowledge. This consists in obtaining from various sources, all possible pertinent information. At this stage, analysis of the company's information needs and data collection is important. In the next stage, that of processing explicit knowledge, the information collected is subjected to preliminary arrangement and storage and then analysis and interpretation. The sharing of explicit knowledge follows these activities. This consists in disseminating the collected and processed information, and reaching out to parties interested in the results of the analyses conducted. Their feedback provides new insights into the interpretation of events, phenomena or objects, and through this, they can influence the behaviour and judgment of the recipient.

Another kind of knowledge is tacit or hidden knowledge. Its acquisition mainly consists in improving the competences of employees. Its processing involves assessing the degree of assimilation of knowledge acquired by the employee and verifying the usefulness of knowledge from the point of view of the objectives to be achieved by the employee and the organisation itself. The subsequent stage is the sharing of the acquired bona fide tacit knowledge.

The last stage of knowledge management is the joint use of explicit and tacit knowledge for making managerial decisions. It is important to link explicit and tacit knowledge since they intersect with each other, and together they lead to the rational use of knowledge resources in the organisation.

The authors of the described concept of knowledge management attribute a special role to the organisational culture in this process. It should be oriented towards innovation, openness and pragmatism.
A. Kowalczyk, B. Nogalski claim that knowledge can be divided into four basic categories (Kowalczyk, Nogalski, 2007, p. 23):

- **know-what** – knowledge here comes in the form of data resources relating to facts and takes the form of data that can be easily stored and transferred,
- **know-why** – this is knowledge about causal relationships, recognised values, social norms, etc.,
- **know-how** – professional knowledge (explicit and tacit/hidden), actual skills of the employee, their professional experience, acquired new knowledge during learning; know how enables the employee to apply a specific procedure or method of action,
- **know-who** – refers to an individual or a team and is the domain of those who possess the above mentioned types of knowledge.

Apart from the above mentioned categories, it seems appropriate to include a further one: **know-whom** – knowledge that takes the form of a network of contacts in the organisation and outside, mutual obligations, professional reputation.

### 3. Methods and characteristics of the research sample

Triangulation of research methods was used in the conducted studies. The leading method was a **diagnostic survey** with company employees, concerning "knowledge management", which was preceded by a thorough analysis of literature in this area of research. The remaining methods applied in the paper were auxiliary (complementary). A literature review (literature in the field of knowledge management, talent management, employee development) was used in undertaking this type of research. Secondary resources in the form of various types of reports, accounts or research messages concerning talented people were also analysed.

The triangulation of research methods made them more reliable, because a wider context of the studied phenomena was obtained and a higher quality of the conducted research was ensured. The diversity of methods was aimed at achieving a consistency of the empirical basis for the inference. Independent variable metrics constituted the last part of the questionnaire. These include gender of respondents, age of respondents, size of the company (workplace), place of residence.

The respondents are part-time students at three Universities in Wroclaw and nearby municipalities. A total of 356 students were examined. The studied group was evenly divided on the basis of gender. Women constituted 51% of the surveyed group and men constituted 49% of it. The gender of the respondents is presented in Figure 2.
About 69% of the respondents were young people aged 19-29. 19.7% of the respondents were aged 30 to 40. The least numerous group were students over 40 years of age (11.2% of respondents). The test population recognises the importance of knowledge in the context of human intellectual capital. Most are at an early stage of their professional career, in which there is a crystallization and narrowing of the exploration field of career choice and professional development. By raising their qualifications, they want to be competitive on the labour market. By returning or going to school, they invest in themselves while simultaneously having higher requirements regarding career and professional development. The age of respondents is shown in Figure 3.

About 35% of the respondents are employees of companies employing more than 100 people. Over 21% of all students were employed in medium-sized companies (from 21 to 50 employees) and the same percentage in organisations employing from 6 to 10 employees. The companies employing from 51 to 100 employees account for only 10.1% of the respondents. Respondents are, hence, mainly employees of small and medium companies due to the fact that they live in the surrounding villages. The employment of respondents in terms of the size of the company is shown in Figure 4.
Among the studied Universities, two were located in poviat capitals in the Lower Silesia province. The majority of them (43%) are the residents of small towns up to 50,000 inhabitants (Figure 5). About 28% of them are village residents. The residents of the towns up to 10,000 inhabitants constituted the smallest group. It is worth noting that only 1.1% are the inhabitants of the big cities.

4. Knowledge acquisition and development

In one of the first questions, the respondents were asked for their opinion on the understanding of the term "knowledge" (Figure 6).
More than half of the respondents (50%) are aware of the importance of knowledge in today's economy. Approximately 29% of the respondents say that knowledge is a building block of intellectual capital and another 21.3% believe that knowledge is an investment. They understand the importance of knowledge in broadening competences, improving effectiveness and efficiency within an organisation. It can, therefore, be assumed that they treat knowledge (or rather acquiring it through participation in courses, trainings, workshops or studies) as an important component of the intellectual capital of an organisation. It can be argued that they consider the financial resources used by the organisation to obtain knowledge as an investment rather than a cost. Nearly 33% of all respondents also believe that knowledge is a development stimulus and 7.9% define knowledge as a generator of wealth. In addition, more than 6% treat knowledge as a competitive asset, but only 2.2% treat it as a production asset. Of note, about 1.1% interpret knowledge as an element of products, and yet it is knowledge that determines their creation.

Respondents' opinions allow for concluding that knowledge is the basic resource of an organisation that determines its intelligence. Furthermore, knowledge is a property held by the employees and not the organisation, yet it determines the market value of the company at the same time. Knowledge is also the art of creating the value of intangible assets of an organisation. Thus the success of a company is determined by the worker’s ability to acquire, accumulate and share knowledge with other co-workers. Knowledge is, hence, the foundation for the functioning of a modern organisation. It should also be stressed that knowledge is of a qualitative nature.

The next question was supposed to determine how blatant knowledge is shared. Their answers are shown in Figure 7.
A significant part of the respondents (44%) stated that blatant knowledge is shared mainly through personal contacts. Herein, one in three respondents believes (similarly claiming) that blatant knowledge is shared during workgroup meetings Therefore, the involvement of employees is of importance in this process. It can also be assumed that meetings (formal and informal) facilitate the creation of new ideas and visions and lead to better solutions to existing problems in the company. Furthermore, appropriate interpersonal relations guarantee the sharing of knowledge at different levels of the organisation. It also proves that the studied companies create an organisational climate conducive to knowledge sharing and that there is no internal competition between employees. Thus, managers are able to manage knowledge transfer and motivate employees accordingly. It can be additionally assumed that mentoring programs work well in these companies.

However, only 9% of the respondents believe that sharing takes place through IT infrastructure using e-mail and 5.6% through the use of knowledge bases. The results show that in the studied companies the emphasis is not placed on the strategy of codification with the use of information technology. Lack of adequate hardware and software may be the reason.

Beyond the aforementioned, about 2.8% of the respondents consider corporate team building trips as an effective way of sharing knowledge. Such results were surprising. It was expected that corporate team building trips would play a greater role in knowledge sharing.

In their statements, the respondents expressed their willingness to share knowledge. Therefore, they were asked to give their reasons for sharing knowledge with their colleagues. The answers are shown in Figure 8.

**Figure 7.** Respondents' views concerning the ways of sharing blatant knowledge. Adapted from: own research.
Figure 8. The reasons for sharing knowledge within an organisation. Adapted from: own research.

More than 39.3% of the respondents give goodwill as the main reason for sharing knowledge and 29% of the respondents stated they enjoyed doing it. This proves the good atmosphere of cooperation in the studied companies. When building positive relationships with colleagues and supervisors, principles such as mutual respect, kindness, honesty and tolerance should be observed. The research shows that these principles are present in the companies of the studied respondents. They are aware that one can achieve much more through cooperation and kindness than alone. It also proves that employees are emotionally connected with the organisations employing them, that they identify themselves with them and care about the development of the companies. Furthermore, their aim is to achieve the goals of the organisation.

About 12% of the respondents share their knowledge to gain the sympathy of their colleagues and the same number (13.5%) takes satisfaction from having more knowledge than others. It could be said, then that helping other employees makes the respondents feel better, more valuable, needed and ultimately happy with their work.

Only 6% of the employees hope for the recognition of their superiors and 1% believe that this way they will ensure faster promotion. For these people, recognition of the superior is their priority value. By sharing knowledge with their colleagues, they want to get material benefits. They do not really show concern and understanding towards their colleagues. They are only pursuing their goals and professional ambitions. They are not interested in the good atmosphere of cooperation in the company.

In today's economy, knowledge is being treated as an organisation’s most valuable resource. It determines an organisation's intellectual capital, and it is characterised by certain attributes, which the respondents systematised from the most important to the less important. The respondents' opinions are shown in Figure 9.
Accordingly, 42% of the respondents mentioned transferability as the most important attribute of knowledge. Hence, the respondents appreciate the possibility of using knowledge in different contexts, and note that it can be "transferred" and applied to other new situations or varied contexts. Moreover, they recognized that knowledge can be transferred between departments, branches or subsidiaries of the company. It must also be underlined that thanks to knowledge transfer, the process of adaptation of newly recruited employees to the organisation becomes easier and faster.

The respondents (23%) listed subjectivity as another attribute (here, the interpretation depends on the individual experience of a person who uses it, and on the context in which it appears). Simultaneously, it should be noted that in speaking of the subjectivity of knowledge, we are dealing with the employee's (human's) aspiration for perfection. The intellectual capacity of employees and their autonomy in decision-making are also noteworthy. It can, therefore, be assumed that the usefulness of the possessed knowledge resources depends on the employee's skills.

An important attribute of knowledge according to the respondents (13%) is self-supply (sharing knowledge does not result in the loss of its value). The respondents appreciate that this is the only organisation resource that is inexhaustible. On the contrary, they realize that its value increases with an increase in its sharing frequency.

Another important attribute according to the respondents (9%) is embedding (knowledge is in people's minds, which makes it difficult to transfer and share). If it cannot be verbalised, it becomes inaccessible, difficult to develop and verify.

In the opinion of the respondents, spontaneity (knowledge develops in an often uncontrolled process) – 8% and impermanence (knowledge loses its value with time) – 5% may be considered as insignificant attributes of knowledge. It is believed that the general knowledge owned by a human being doubles every 5 years.

Figure 9. The respondents' opinions on the importance of knowledge attributes. Adapted from: own research.
Implementation of "knowledge management" in the organisation brings certain benefits that concern three entities: the organisation, the employees and the market. In the survey, the respondents were asked for opinions on how the employees benefited from the presence of "knowledge management" in an organisation. Their opinions are shown in Figure 10.

Every fourth respondent (24%) believed that "knowledge management" facilitated access to the knowledge source at a company. This entailed optimisation of the work performed, and, as a result, its higher efficiency. It can be, therefore, concluded that they value such features of knowledge as transferability. Thanks to it, it is possible to use the knowledge resources in various areas at the same time (simultaneously by individual employees, in various departments or across divisions of the company). This results in optimisation of work process.

Approximately 19% of the respondents stated that "knowledge management" positively influenced employee creativity, which resulted in generating new values for the organisation. They probably had in mind such attributes of knowledge as subjectivity or self-supply. While discussing subjectivity, it should be remembered that an employee naturally strives for professional excellence. The result is the creation of new concepts and ideas. Using knowledge resources and sharing it within the organisation brings about its growth. This, in turn, generates new ideas and innovative solutions.

Almost 16% of the respondents believe that the presence of "knowledge management" attaches the employees emotionally to the organisation, and creates a bond with the company. Such bonding results in low turnover of staff. The respondents view this as a chance for an organisation to function in the conditions of limited human resources. In the recent years, more and more companies have been struggling with finding qualified staff. This problem affects practically the whole of Europe. Increasingly often, while taking up employment, employees take into account such factors as the atmosphere, the sense of self-fulfilment, or the opportunity for professional development.

**Figure 10.** The opinions related to the employee benefits resulting from "knowledge management". Adapted from: own research.
More than 14% of the respondents view "knowledge management" as an opportunity to improve their skills, and treat it as continuous development. For many employees, this factor is more important than financial matters. The desire for perfection is a part of human nature.

For 12.4% of the students "knowledge management" meant time saving. They hold that skillful knowledge sharing improves virtually all processes in an organisation.

In the opinion of the employees, less significant benefits included: self-fulfilment (6%), satisfaction with work (6%), increase in the competitiveness of the employees on the job market (4%).

5. Conclusions

On summing up the problem of "knowledge management", it should be stated that this process is determined by many different factors. These include mainly the organisational culture (favourable conditions for cooperation), employee competences (establishing interpersonal contacts, communicating, teamwork skills) and information technology infrastructure (appropriate preparation and equipment of workstations, possession of appropriate information technology tools, access to information technology networks).

In the theoretical literature on knowledge sharing, a significant role is assigned to IT infrastructure (for the processing, collection and transfer of information). This has not been confirmed by the research. According to the respondents, knowledge sharing takes place mainly through personal contacts and during the operation of workgroups. Despite the development of modern technologies, personal contacts guarantee the shaping of desired interpersonal achievements. In turn, knowledge sharing enables change, innovation and better results. It should be remembered that teamwork determines the development of an organisation. Moreover, it should not be forgotten that the process of sharing knowledge involves people.

Respondents share knowledge with colleagues because they enjoy it and have good will to pass on knowledge. Such a positive organisational culture is conducive to positive employee motivation. It can be assumed that such a culture consists of: honesty, loyalty, mutual assistance, tolerance, teamwork and effective communication. Employees who help others feel better and have boosted self-esteem. After all, helping others increases the chances of survival of organisations in such a competitive economy.

Good communication with the superior plays a crucial role in knowledge transfer. Work and knowledge transfer is faster and more efficient. This fosters the employees' trust in their superior, they perceive him/her as competent in the position they hold.

Access to information, its flow and timeliness play an important role in knowledge management. Effective communication leads to an increase in the effectiveness of the processes in the company. Information and easy access to data become important. Introduction of modern
IT programmes boosts a company’s communication to an unprecedented level of information flow. However, it must be noted that knowledge is considered to be most effectively shared through personal contact.

Summing up, the problem of implementing "knowledge management" should be described as a process involving the generation of benefits for the company, its employees and the overall market. The functioning of "effective knowledge management" results in an increase in management efficacy, improves the communication process in the organisation, reduces costs, increases creativity and innovation. Efficient use of knowledge resources increases the competitiveness of not only the company itself, but also of its employees. Furthermore, flexibility to adapt to market needs increases. This also creates with regard to the organisation concerned, a positive external image.

References

1. Brdulak, J.J. (2005). Zarządzanie wiedzą a proces innowacji produktu. Budowanie przewagi konkurencyjnej firmy. Warsaw: SGH School of Economics.
2. Drucker, P.F. (1999). Społeczeństwo pokapitalistyczne. PWN.
3. Drucker, P.F. (2011). Myśli przewodnie. MT Biznes sp. z o.o.
4. Galata, S. (2004). Strategiczne zarządzanie organizacjami. Wiedza, intuicja, strategie, etyka. Difin.
5. Jashapara, A. (2006). Zarządzanie wiedzą. PWE.
6. Kłak, M. (2010). Zarządzanie wiedzą we współczesnym przedsiębiorstwie. Wydawnictwo WSEiP w Kielcach.
7. Materska, K. (2007). Informacja w organizacjach społeczeństwa wiedzy. Wyd. SBP.
8. Morawski, M. (2006). Wiedza jako przedmiot zarządzania w przedsiębiorstwie. In: G. Kobyłko, M. Morawski (eds.), Przedsiębiorstwo zorientowane na wiedzę. Difin.
9. Morawski, M. (2009). Zarządzanie profesjonalistami. Warsaw: PWE.
10. Skrzypek, E. (2012). Jakościowy wymiar zarządzania wiedzą. Zarządzanie i finance, 3/1. Uniwersytet Gdański.