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## IT-TOOLS TO SUPPORT KNOWLEDGE MANAGEMENT IN THE PERSONNEL RECRUITMENT AND SELECTION PROCESS

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**Summary:** The personnel recruitment and selection (R&S) process has a fundamental value to an organisation. During the process, the following information is gathered: the situation on the labour market, the candidates' features, and expectations towards an employer. The collected and properly processed information becomes the base for developing specific knowledge. It is worth mentioning that the use of this knowledge does not refer to the mere employment of a suitable individual, it can also constitute the basis for implementing changes in particular elements of the HR function. The above mentioned facts suggests that there is a need for conscious and consistent knowledge management in the area of R&S. It has been accepted that knowledge management includes performing a cycle of actions, such as gaining knowledge, storing knowledge and implementing changes on the basis of that knowledge. Knowledge management should be "accompanied" by the use of IT tools that are becoming increasingly important in the process of collecting and processing data. Taking the above into account, it has been agreed that it is worth considering the possibility of using IT tools in the process of managing knowledge – at the stage of R&S. The scope of their usage has been presented based on the results of empirical research conducted in 2011 among 96 large companies located in Poland.

**Keywords:** recruitment, selection, knowledge management, IT tools

### 1. INTRODUCTION

The personnel function (HR function) is one of the integral functions present in every organisation and refers to the activities related to the employees and their issues. Its essential components include personnel recruitment and selection (R&S), placement, development, remuneration and promotions.

One may argue that the personnel recruitment and selection process has a fundamental value to the organisation. It includes attracting job candidates and assessing their competencies. As the result of R&S an organisation has adequate human potential. During the process, the following information is gathered: the situation on the labour market, the candidates' features, and expectations towards the employer. Some information is linked to the recruitment and selection process (e.g. the effectiveness of the method used).

The collected and properly processed information becomes the base for developing specific knowledge. It is worth mentioning that the use of the knowledge does not refer to the mere employment of the suitable individual. Additionally, this knowledge can constitute the basis for implementing changes in particular elements of the HR function.

The above suggests that there is a need for a conscious and consistent process of gathering information during the process of R&S as well as a wider outlook on the potential possibilities of applying this knowledge. The solution is the concept of knowledge management. It has been accepted that knowledge management includes performing a cycle of actions, such as gaining knowledge, storing knowledge and implementing changes on the basis of that knowledge.

The definition of knowledge<sup>13</sup> implies that man is the only subject of developing knowledge, because man is the only resource of the organisation capable of learning, developing potential and conceptual thinking. However, knowledge management should be “accompanied” by the use of IT tools.

In the current economic reality, the ‘minute competitiveness’ model has become dominant giving economic opportunity only to those companies that are able to analyse the incoming information streams faster and more efficiently (Kozłowski, 2007, p. 46). IT tools are becoming increasingly important in the process of collecting and processing data. The main benefit resulting from applying such tools is shortening the R&S time through facilitating the communication process with the candidate and the work flow among all the individuals involved in the process. Employees responsible for software development in a company providing, amongst others, systems for HR departments claim that these applications should now be used to support the HR policy, with a particular focus on R&S (<http://gospodarka.gazeta.pl/gospodarka/1,52741,4185707.html>, 19.10.2011).

Taking the above into account, it has been agreed that it is worth considering the possibility of using the IT tools in the process of knowledge management – at the level of personnel recruitment and selection<sup>14</sup>. These tools have been related to particular stages of the knowledge management cycle. The scope of their usage has been presented based on the findings of empirical research conducted in 2011 among 96 large companies located in Poland. The research used the quota selection according to industry<sup>15</sup>. They were performed within the ‘Internship as the Scientist’s Success’ project, financed by the European Social Fund. The respondents were HR employees actively involved in the personnel recruitment and selection process.

## **2. KNOWLEDGE MANAGMENT IN R&S AND THE POSSIBILITY OF USING THE IT TOOLS IN THIS AREA**

In many reference books, there are a large number of knowledge management definitions. As shown in the introduction to this study, it is assumed that knowledge management is connected to completing the cycle presented in Figure. 1.

The stages of knowledge management, which are contained in Figure 1, can also be related to the different kinds of knowledge occurring in a company. Generally, knowledge management should be considered by paying attention to:

- the functioning of the whole organization,
- the functioning of the particular organisational units,
- the cross-organizational processes, i.e. through the different organizational units.

Therefore, it should be emphasized that knowledge management at the R&S level should be a part of the overall system of knowledge management in a company.

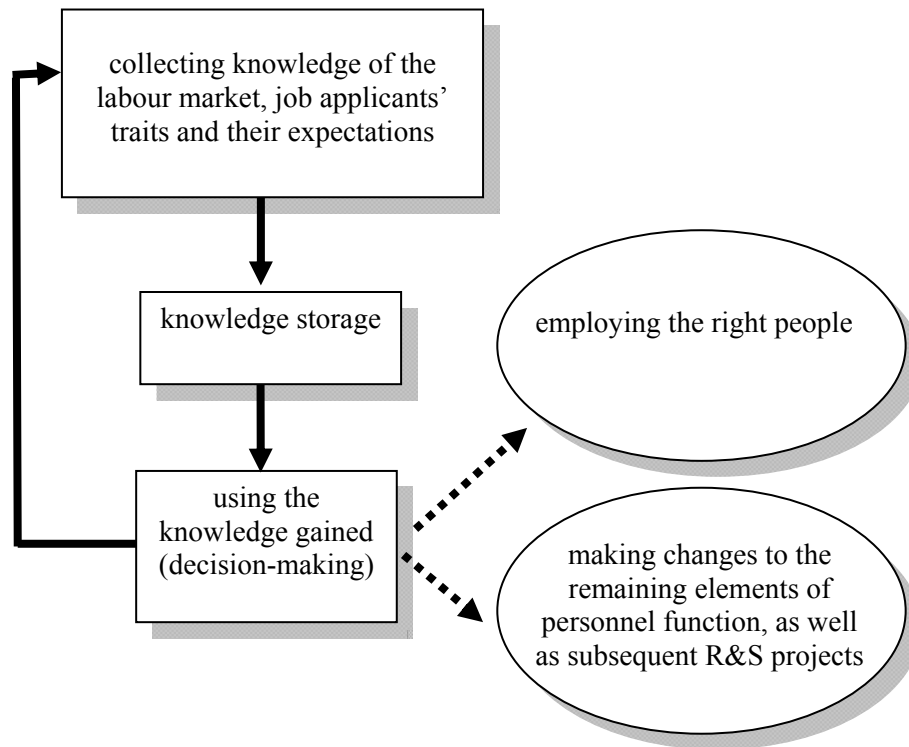
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<sup>13</sup> Knowledge is defined as ‘ information combined with experience, context, interpretation and reflection’ (Davenport, Long, Beers, 1977, p. 1)

<sup>14</sup> It refers to commercial tools adjusted to the needs of a particular enterprise. These IT solutions can be delivered by a software development company or developed internally. The subject therefore excludes functionalities offered by some job portals.

<sup>15</sup> Quota selection was based on the proportions featured in the report referring to a separate study, conducted by PKPP Lewiatan in cooperation with Deloitte ([http://www.muratorplus.pl/biznes/raporty-i-prognozy/kondycja-duzych-firm-w-polsce-w-czasach-kryzysu\\_64588.html](http://www.muratorplus.pl/biznes/raporty-i-prognozy/kondycja-duzych-firm-w-polsce-w-czasach-kryzysu_64588.html), 19.10.2011).

**Figure 1. The cycle of knowledge management in the personnel recruitment and selection process and the results of completing this cycle**



Source: own work

According to the definition proposed by the Institute for Production System and Design Technologies in Berlin, knowledge management describes the methods, instruments and tools which in a holistic approach contribute to the course of the main processes with a part of the knowledge (more see Mikuła, 2001, p. 59). These methods or tools can be generally divided into those which:

- a. allow the processes contained in the cycle of knowledge management to be automated,
- b. fall into the “human resources management” category, effecting a change to the personnel’s attitude towards knowledge.

Information technologies belong to the first group mentioned above. According to J. Jashapara, the most popular IT tools making up the global systems of knowledge management are (Jashapara, 2006, p. 370):

- document management systems – making information available to the right people at the right time,
- decision-making support systems, which take place through data collecting and analyzing,
- team support systems,
- managerial information systems – addressed to top managers,
- workflow management systems,
- customer relationship management systems – helping expand knowledge of the customers’ individual preferences.

Table 1 shows IT tools related to the particular stages of knowledge management in R&S. Emphasis is put mainly on the primary goal of management, namely on employing an applicant with adequate capacity. As pointed out in fig. 1, there are also other possibilities to exploit knowledge such as making changes to the remaining elements of HR function (on the basis of the expectations postulated by applicants) and modifying the process of personnel recruitment and selection itself (on the basis of previous learning experiences).

**Table 1: The IT tools supporting a completion of the knowledge management cycle as part of personnel recruitment and selection**

The stage of knowledge management	The IT tools supporting a completion of the particular stage
knowledge collection	<ul style="list-style-type: none"> <li>▪ corporate recruitment websites containing not only job offers but also application forms,</li> <li>▪ catalogues (databases) of application documents,</li> <li>▪ on-line tests (in knowledge, skills, job predispositions) used in the selection process,</li> </ul>
knowledge storage	<ul style="list-style-type: none"> <li>▪ database applications (cataloguing application documents),</li> <li>▪ systems supporting team work in recruitment projects,</li> </ul>
knowledge use	<ul style="list-style-type: none"> <li>▪ pre-selection tools for gathered applications,</li> <li>▪ a tool creating an applicant's ranking at the end of the recruitment and selection process.</li> </ul>

Source: own work

In this way, it should be found that knowledge importation is favourably enhanced by employing a tool such as an application form. It forces an applicant to provide information in which an employer is interested (e.g. education, work experience, expectations about work and salary conditions).

The basic requirement for applicants of different positions is possessing defined knowledge and occupational skills. The indicated competence can be checked using, amongst others, IT systems. These can be test-dedicated tools or e-learning software, which – so to speak “as the opportunity arises” – allows checking the level of competence in a particular thematic field. IT tools can also help determine the level of intelligence, personality type, and occupational predispositions of an applicant. Many so-called psychometric tools for selecting job applicants have an electronic form (more see Piwowa-Sulej, Grajewski, 2010, p. 92-100).

Using information technologies generally facilitates knowledge codification and storage. Codification allows the significant reduction of knowledge distortions occurring in the traditional procedure of information sharing (through interpersonal communication). Every authorized employee can obtain from the knowledge base as much knowledge as they need as far as their permissions allow them. It is important for all interested parties to have access to the knowledge they need. That is why systems facilitating team work within personnel recruitment and selection projects are significant tools. Depending on the requirements for a given position, for which an applicant is searched, the HR personnel, line managers (management at different levels), and board will take part in the selection process.

Using knowledge means making the right decision. The decision-making process can be speed up with tools serving to preselect the filed applications or creating rankings of potential employees. Thanks to the use of the application form on the corporate website, shown above, applicants are forced to provide answers to the most important selection questions. Next, the applications meeting the basic job requirements can be selected in an easy way. Systems supporting verification of the applications' documents (CVs, cover letters) by searching databases with the applicants have also appeared on the information technologies market, supporting the human resources function. Thanks to these, application documents, which prove that an applicant does not meet the basic selection requirements, are quickly rejected from the company's own database.

The figure presented above should be treated as a proposal that should be updated along with development in the field of information technology. The needs expressed by the employees of HR departments are also significant. In empirical research – shown in the next part of the

article – emphasis was then put on both the popularity of using certain information solutions and the reasons behind it.

### 3. THE SCOPE OF USING IT TOOLS IN THE PERSONNEL RECRUITMENT AND SELECTION PROCESS – THE RESULTS OF EMPIRICAL RESEARCH

The synthetic results of research on the scope of using IT tools in the personnel recruitment and selection process are shown in Table 2. The research proved that by far the largest reserves (shortages) in the scope of using IT tools lie in the selection process. It mainly concerns electronic tools serving to conduct job interviews and to verify knowledge, skills and occupational predispositions of the applicants.

*Table 2. The popularity of using company IT tools serving to recruit and select personnel*

The scope of using an IT tool	The popularity of using (% of the companies using a given tool)
cataloguing (the databases) and preselecting the applications filed via the application form	21%
team work in recruitment projects (human resources department and other interested parties)	35%
e-learning tools to carry out knowledge and skill tests	8%
knowledge and skill tests exclusively dedicated to the personnel selection process	18%
personality, intelligence, occupational predispositions tests	13%
online interviews with the applicants	7%

Source: own work on the basis of the results of research done

Significantly, the majority of the companies researched launches over 20 personnel selection projects every year. It then seems that the IT tools – according to the reasons for using thereof presented above – would significantly facilitate the process of gathering, storing, and using knowledge of the applicants and thereby contribute to employing the right persons.

As shown earlier, the respondents were also asked the reason for not using information technology. The answers to this question are provided in Table 3.

*Table 3. The most frequent reasons for not using company IT tools serving personnel recruitment and selection*

The scope of using an IT tool	The most frequent reason	Percentage of the respondents providing a reason
cataloguing (the databases) and preselecting the applications	no need	38%
team work in recruitment projects (human resources department and other interested parties)	no need	46%
e-learning tools to carry out knowledge and skill tests	no need	68%
knowledge and skill tests exclusively dedicated to the personnel selection process	no need	46%
personality, intelligence, occupational predispositions tests	no need	46%
online interviews with the applicants	no need	67%

Source: own work on the basis of the results of research done

Research indicates that the main reason for not using IT tools in every scope is not the lack of appropriate offers or the expense of purchasing software, but not feeling the need to use these tools.

The presented approach to the selection of applicants for a job corresponds to the results of research conducted by A. Sokołowski, concerning the use of information technology in the process of diagnosing the predispositions of decision-making managers. 22% of the respondents – the HR experts – found the identification of the shown managerial competence insignificant (more see Sokołowski, 2011, p. 31-34).

#### 4. CONCLUSIONS

A modern company to be fully competitive should fulfil the following conditions:

- possess adequate knowledge,
- be able to use this knowledge appropriately.

It concerns any kind of knowledge occurring within a company – significant for making the right business decisions.

In this article, the significance of knowledge management at the level of personnel recruitment and selection was stressed. The indicated elements of the human resources function are fundamentally important for a company. As a result of these, it has adequate human resources at its disposal.

IT tools can contribute to an increase in effectiveness of completing the knowledge management cycle at the R&S level through facilitating and speeding up the process of collecting information on the applicants' qualifications required for a job as well as their expectations towards employers and preselecting the applications.

In this article, the author's own classification of these tools was introduced with reference to the levels of the knowledge management cycle taking the main goal of this management – employing the right applicants – into consideration. The results of empirical research concerning the use of particular IT tools were also presented. Research indicates decreased popularity of IT tools supporting job applicant selection. The fact that the main reason for not using IT tools within the different scopes of the personnel selection is not feeling the need to use modern technologies by the employers of the HR departments is shocking.

To sum up, it should be stressed one more time that the significance and complexity of knowledge management results from the interdisciplinary nature of this idea. Not only does success in this matter depend on the employed information solutions but also on the people who use them.

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