

NEW TRENDS IN HUMAN RESOURCE MANAGEMENT - OPPORTUNITIES, CHALLENGES AND THREATS

Armenia ANDRONICEANU^{a*}, *Oana Matilda SABIE*^b, *Mihaela COMANESCU*^c, *Mihai ANDRONICEANU*^d

^a *Bucharest University of Economic Studies, Romania, armenia.androniceanu@man.ase.ro*

^b *Bucharest University of Economic Studies, Romania, oana.sabie@amp.ase.ro*

^c *Bucharest University of Economic Studies, Romania, mihaela.s.comanescu@gmail.com*

^d *Bucharest University of Economic Studies, Romania, , mihai.androniceanu@amp.ase.ro*

ABSTRACT

Changes in social and mobile technologies and on the labor market that is taking place lead to a comprehensive and complex process of adapting human resources management within organizations. The aim of our research is to present and analyze the changes that take place in the human resources management of few Romanian organizations. In the paper are presented the main transformations that take place with the help of social and mobile technologies, using Artificial Intelligence (AI) interfaces and Machine Learning algorithms. The main tool for data collection was the interview. Based on the data collected from the interviews with the human resources managers from the organizations included in our research we found out the main risks of new technologies, the key steps for change the organizations and the main advantages of the ITC integration within the human resources management. The results show an exponential growth in the use of the Internet applications, Artificial Intelligence (IA), chats, smart services, Machine Learning technology, mobile solutions, and social platforms to increase employee engagement and make their work more simple and enjoyable. Our research has led to the discovery of the main difficulties in the field of human resources generated by neglecting the necessary changes due to new technologies applicable in the area.

KEYWORDS: *human resources management; new technologies; artificial intelligence, organizational changes; informational technologies and communication.*

1. INTRODUCTION

The new trends in human resources are related to the major transformations that have taken place over the last decades in all areas of social life. The biggest impact on the structure of human resources (HR) is given by the information technologies. As the technique grew more and more into daily life, the professions have changed. Progressive planning of the global market requires the harmonization of different cultures, structures and policies. They will significantly mark all activities, including those in the field of human resources. Forecasts show that in the middle of the 21st century more than 50% of human resources will be employed in computer science and in activities that operate with computer applications. Simultaneously with these developments, in the occupational structure there will be a series of major changes in the sphere of attitudes and aptitudes as a result of the transformation of the processing employees into computer operators. There is a tendency to change

* Corresponding author. E-mail address: armenia.androniceanu@man.ase.ro

the weight of human resources skills. On the labor market there is a shift from the motor and sensory skills to the intellectual ones, based on creativity and critical thinking (Bánociová & Martinková, 2017). Moreover, it is believed that in the future the share of those who will work in research will increase, but the modalities of direct involvement of human resources in this field will be very different. Thus, in Japan, it is considered that a company with 30000 employees has 30000 inventive employees, while in a European company, only 2,000 employees are creative from a number of 28,000. Technology is evolving at an alert way remodelling global and local markets and skills requirements (Chipet & Surujlal, 2017). In this context, human resources departments and human resource service providers are faced with the challenge of constantly finding human resources with innovative potential to contribute to the development of competitive and flexible organizations (Belás et al. 2017; Bordean & Borza, 2017). In the coming years, HR experts will have to focus on the strategic role of human resources and capitalize on the opportunities to demonstrate the return on investment in human resources (Donnelly, 2017).

2. LITERATURE REVIEW

The information society implies the intensive use of information in all spheres of activity and human existence, with significant economic and social impact (Žofčinová, 2017). New information technologies are used both individually and within organizations with high flexibility. The rapid development of information technology over the last few years has had an increasing impact on society and global economy, bringing fundamental changes in production and distribution patterns, trade conditions, employment and daily life (Dobrovič & Timková, 2017; Gorb, 2017). The prerequisites for moving to the information society are determined by digital technologies that make it easier and cheaper to access, process, archive, and deliver information (Havu, 2017; Popescu et al. 2017).

This huge amount of available information creates opportunities to exploit them by inventing new products and services by developing new activities and increasing the number of jobs. The new economy, specific to the information society, transforms digital information into economic and social value, creating new industries, modifying existing ones and deeply affecting the lives of all citizens (Jotanović et al. 2017). Also, the prerequisites for the transition to the information society reside in its characteristics, which are expressed from several points of view, from global to individual. From a political point of view, the information society is a democratic one; from the administrative point of view, offers development opportunities for business and public administration; from the social point of view, it offers the population easy access to education through the development of information and communication infrastructure; from a legal point of view, modify the nature of the work, creating conditions for the development of the activities specific to the information age; from an economic point of view, it increases the potential of business and labor productivity; from a cultural point of view, it is a knowledge-based society, ensuring human values (tradition, religion, inter-human relations, etc.); from an individual point of view, allows the capitalization of intelligence with small investments. These prerequisites do not exclude the emergence of issues related, firstly, to the adaptation of the individual (and society in general) to the conditions of the new economy (Szarowská, 2017). A faster adaptation can be built on increasing the individual's trust in the organization and society, as well as acquiring the necessary skills to access information and make efficient use of them. Experience shows that new technologies lead to growth and job creation (Internet-related companies now account for over 8 million direct jobs, without taking into account the considerable effects of indirect employment). The development of digital technologies in the context of flexible labor, capital markets and the reduction of regulatory barriers to competition, leads

to increased productivity and offers the possibility of long-lasting, strong and non-inflationary economic development (Simionescu et al. 2017; Valter et al. 2016). Also, this economic development needs to be matched with the promotion of cultural values, combining digital culture with the benefits of telecommunication (Šebestová et al. 2017). Researchers, business people and politicians need "know-how" to transform activities that influence the core values of work, culture, interpersonal relationships, leisure, etc.

These values are the engine for the good functioning of a society and can eventually determine the nature of the processes and institutions in that society (Žofčinová, 2017). The information society requires a high demand for skilled labor, with the population having to learn how to work with information. This is a major test for educational institutions within society. A large proportion of the population will not meet the human resources requirements of the intensive information economy, being functionally illiterate. This informal illiteracy will be a real problem for the information society, where each person needs to know at least three languages: a foreign language of international circulation, computer language and artistic language (Strielkowski, 2017). The information society offers the population the opportunity to receive information from various fields and engage in debates. The citizens should assume democratic responsibilities in what is called cyber-democracy. The development of the ITC (Informational Technology and Communication) industry in recent years has been an exponential one, perhaps the most spectacular in the history of industrial change, as can be seen in Figure 1.



Figure 1. The Impact of ITC evolution in different states in 2005-2015

Source: <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

Information technology changes the way companies perform their business in its essential aspects, related to structure, objectives, strategies and human resources. Due to its competitive advantage, it is widely used in all business environments. The ITC revolution is leading to a decrease in the prices of telecommunication services and equipment. The main benefits of the organizations and individuals are: high quality services, fast installation of telecommunication lines, more efficient information services, call center development, call transfer services, etc. It is estimated that ITC industries are growing at least 5% faster than other sectors, with a major contribution to overall economic growth. The huge amount of information changes the way markets work, leading to the restructuring of economic activities and the opening of new opportunities for creating wealth by exploiting the available information. Informational Technologies and Communications marks the start of a new

business revolution where new technologies and human resources play a decisive role in ensuring success. The following section of the paper presents the results of a selective empirical research conducted by authors with the participation of a limited number of human resources managers (8) from eight representative organizations in Bucharest.

3. MAIN RESEARCH RESULTS AND DISCUSSIONS

The aim of our research is to present and analyze the changes that take place in the human resources management of few organizations from Bucharest. In the paper are presented the main transformations that take place with the help of social and mobile technologies, using Artificial Intelligence (AI) interfaces and Machine Learning algorithms. The main tool for data collection was the phone interview. Based on the data collected a picture of the new trends in human resources management on the labor market in Bucharest has emerged. The structured interview contained five relevant questions. Subjects' responses have led to the identification of the main changes in human resource management, as a result of assimilation of information and communication technologies. The main issues analyzed were: (1) risks to human resource management; (2) main steps to adapt the organizations to the new social and mobile instruments and ITC applications based on artificial intelligence and mathematical algorithms; (3) the advantages of the new technologies for human resource management.

The results of our research have led to the identification of the following risks and difficulties faced by human resources managers interviewed:

- The low level of investment in information technologies applicable in the human resource field;
- Difficulties in the integration of new social and mobile media and IT applications in the field of human resources;
- The vision of human resources managers regarding the integration of new technologies in this field is not clear at all;
- The personnel working in the field of human resources do not have enough competencies to use the new applications and technological platforms in the area;
- Limited optimism regarding the integration of new technologies in the field of human resources;
- Difficulties in correlating new technologies with the internal needs of organizations.

The main steps to minimize the risks of new technologies integrated within the HRM and to adapt the organizations to the new technologies, as they were considered by the HR managers involved in our research are:

- Detailed analysis of the activities in the field of human resources and identification of the management capacity of the specialized departments;
- Creating a clear vision for the integration of new technologies in the field of human resource management;
- Establishing the main objectives of human resource development in correlation with organizational objectives;
- Informing and consulting the human resources regarding the organizational changes that will take place;
- Involvement of human resources in specialized departments and other managers in preparation for change;
- Communicating the change strategy in the field of human resources;

- Implement and monitor the implementation of changes in human resources management and provide the necessary support to overcome resistance or other implementation problems;
- Evaluating and adapting the content of the changes, depending on the results and difficulties encountered.

The main advantages of the new technologies within the HRM, as they were considered by the involved human resources managers are presented and explained below.

- Access to documentation and information: learning materials offered on the Web are integrated into an open platform.
- Personalization: the content is determined by the employee's needs and organization's objectives, with the purpose of meeting the needs of each user.
- Interoperability of applications: they are correlated and allow data transfer and operation.
- Internal and external online communication.
- Developing new applications needed in the human resources field to ensure sustainable organizational development.

At the same time with the development of information and communication technologies, Internet applications, such as the Web, e-mail, video conferencing, virtual reality, and others, the education has been greatly diversified at all levels. Educational programs implemented with the help of Internet-based, e-learning systems overcome the time and space boundaries, becoming an integral part of the teaching and learning process. E-learning is currently a widespread technology in organizations. Learning is the key support mechanism in organizations to improve the skills and knowledge of their employees, a process that increases competitiveness in the new economy. The new learning style will be driven by the requirements of the new economy. Learning needs to be personalized online service, initiated by user profiles and industry requirements. Also, learning must be relevant to the semantic context of user activity. Personalization is an innovative approach in organizational systems, representing an advanced stage in the evolution of learning systems. Users have different profiles (depending on education, professional training, skills, concerns, backgrounds, etc.), learning styles and goals. Consequently, their needs have to be addressed separately and differentiated.

The results of our research demonstrate that the main changes in the field of human resources that will significantly mark this area are the following:

- Big data and metadata;
- Mobile applications;
- Social media applications;
- Cloud computing and mobile applications;
- Artificial intelligence applications.

Human resources managers are starting to consider taking a more active role in achieving the organization's performance goals. And, as performance goes hand in hand with technology, the human resources industry quickly adopts the most modern software tools. Two examples given to us by interviewed managers are: Software-as-a-service and Master Data Manager. Software-as-a-service (SaaS), shows one of the highest rates of cloud computing and application, a trend that will increase in 2019. Human resource service companies offer solutions SaaS with a growing degree of customization to support talent management initiatives, performance appraisal processes, or competence-based management. Another important trend in HR technology is the management of critical data (Master Data Management - MDM). It is a fact that many organizations do not yet have a unique employee registration system. Human resources managers are working to synchronize data across different systems, which can give rise to a number of inconveniences in HR processes such as payroll errors or poor integration between different human resource functions: performance management, recruitment, timing, etc. Data quality is essential for certain HR processes such as

embedding the new employee into the organization (on boarding) or terminating the employment contract. New data management solutions are expected on the market. Human resources processes, including recruitment, training, or performance management, will move from desktop/laptop to phones, tablets, and other mobile devices. Smart phones are being used on an increasingly large scale, and 4G speeds have already reached 22 Mbps, so in the coming years we will probably see how more and more human resource service providers implement mobile recruitment strategies and mobile applications for recruiting staff.

In the context of a highly competitive market, human resources specialists will need to demonstrate how human resource management interventions can add value to organizations. In order to understand the impact that human capital management has on the business and to make correct decisions about personnel, human resource service firms will include in their processes statistical analysis. Often, labor-related decisions are based more on intuition than on facts and quantitative data. The HR statistical analysis is based on data from internal sources (payroll, other HR functions, employee surveys, marketing and sales data, etc.) as well as external sources such as industry standards, market studies, market trends labor force or competition actions. There is growing interest among HR professionals for external reference points, and HR analysis software will meet these needs by incorporating more and more external data. Building the commitment of teams and potential candidates will be a priority of HR managers. In a context where skilled talent is increasingly difficult to find and keep in an organization, HR professionals will have to capitalize on all the opportunities available today. The Internet and social networks provide valuable tools for getting involved; firms offering human resources services are already investing in developing career sites that are as attractive to candidates as possible and streamlining the entry process for a job. The intranet has great potential for building commitment, representing an excellent communication tool within the company. Internal networks facilitate conversations between all levels of the organization, from general manager to operational staff, encouraging diversity of opinions and stimulating the creative potential of all members.

We all know today that the level of involvement of staff depends to a large extent on the quality of the employee-manager relationship. Leaders of human resources will need to provide their employees with the necessary working resources and ongoing support for professional development. Human resources policies also need to address the issue of workplace stress and put more emphasis on work-life balance. It is proven that this balance generates a positive return on investment (ROI). Experts believe that in the near future, the traditional curriculum vitae (CV) will compete with what we call the "Klout Score" - a number that measures the influence of an individual in the virtual environment of social networks, or, in other words, the power of the "personal brand". In the future, the Klout score will gain an increasing visibility on CVs and LinkedIn profiles. A few years ago, Microsoft Bing and Klout have entered into a partnership to integrate the social influence score into the search results. As a result, more and more recruiters will turn to an online check of candidates prior to the employment interview, which will focus on the Klout score, the size of the LinkedIn community, the quality of the recommendations, the number of followers on the Tweeter, etc. The concept of personal branding has begun to take on new forms with the development of social networking. In the years to come, recruiters, employees and candidates will be more concerned with building personal brands. With demand for jobs far outweighing the supply, candidates with strong personal brands will have an important advantage in the recruitment process.

4. CONCLUSIONS

The characteristics of the information society consist of the following considerations: a) the information society evolves and influences significantly the present society. b) new technologies will be found in many aspects of everyday and organizational; c) technology should be seen as a way to develop and optimize human activity; d) the development of the information society must have a profound anthropocentric character, although the motivations of the organizations have, above all, a techno centric character; e) the internet and all ITC applications become the main instruments for making effective changes within organizations; f) the main issues to be addressed include: (i) labor legislation; (ii) copyright; (iii) raising the level of knowledge of the population; (iv) development of information infrastructure; (v) finding new forms and new rules of the educational process and of the involved institutions; (vi) mitigating the impact on geographical dispersion and labor transport; (vii) insuring conditions for the involvement of the population in the process of creation and development of the information society. Implementation of the information society calls for close cooperation between academic, governmental and business environments. Such a partnership can be the key to the success of organizational changes that are absolutely necessary in the new digital age.

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