# THE ROLE OF INFORMATION SYSTEMS IN HUMAN RESOURCE MANAGEMENT IN SERBIA

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#### **ABSTRACT**

Human resource management (HRM) is becoming more and more important for the contemporary enterprises. Organizations that understand the importance of human capital apply very specific practices for managing people. One of these practices is the application of information system for HRM (HRIS) that enables systematic processes for collecting, storing, maintaining, and recovering data required by the organizations about their human resources, their activities and organizational characteristics. In this paper author made analysis of HRIS from the theoretical point of view, accompanied by empirical data analysis of Cranet data for Serbia, from research period 2008/2010. Main goal of this research was to emphasize the importance, advantages and some limitations of HRIS, but also the usage of HRIS for main HR practices in Serbian companies. Methodology used in the research included exploration of the Cranet questionnaire, sample of Serbian companies and statistic techniques, trough the application of the program SPSS Version 17.

**Keywords**: human resource management, information system, Serbia, Cranet.

## **INTRODUCTION**

HRM is becoming more and more important for the contemporary enterprises as it plays a vital role in implementing the strategic business objectives of the organization, and in running the daily operations/functions efficiently and effectively to improve the productivity and proficiency (Krishna and Bhaskar, 2011). Organizations that understand the importance of human capital perform different and very specific practices for managing people – planning, staffing, training and development, performance management, compensations and benefits, retiring, working conditions, health and safety, employee relations, retention and policies on work-life balance, etc. One of these practices is the application of information system for HRM. Nowadays studies attempted to identify the effectiveness and the importance of the use of HRIS on the HR functions in the organizations (Shiri, 2012; Parry and Tyson, 2011; Singh et al., 2011; Troshani et al., 2011).

In this paper author made analysis of HRIS from the theoretical point of view, accompanied by empirical data analysis of Cranet data for Serbia, from research period 2008/2010. Main goal of this research was to emphasize the importance, advantages and some limitations of HRIS, but also the usage of HRIS for main HR practices in Serbian companies. Methodology used in the research included exploration of the Cranet questionnaire, sample of Serbian companies and statistic techniques, trough the application of the program SPSS Version 17.

#### THEORETHICAL BACKGROUND

At the beginning of the research authors gave several definitions of HR information system.

HRIS enables systematic procedure for collecting, storing, maintaining, and recovering data required by the organizations about their human resources, personnel activities and organizational characteristics (Kovach et al., 2002). Tannenbaum (1990) defines HRIS as a "technology-based system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information regarding an organization's human resources" while Broderick and Boudreau (1991) claim that HRIS is "the composite of data bases, computer applications, and hardware and software necessary to collect/record, store, manage, deliver, present, and manipulate data for HR".

Also, HRIS can be considered as a tool that provides strategic planners with the needed information enabling them to forecast future workforce demand and supply requirements. It can be considered as a "tool that helps employers in retaining the right employees. This can be done by paying them competitive salaries compared to the market, and training them to develop their skills and abilities to carry out their existing and future jobs" (Obeidat, 2012). Stone (2011) sees HRIS as more than just computerized records of employees – it is an integrated approach to procurement, storage, analysis, and control of the flow of information on human resources management throughout the organization. This system provides necessary information for planning HRM activities such as forecasting employees demand and supply, compensation system planning, and training and career development of employees.

When we talk about the role of HRIS in HRM, it is important to mention several researches made in the past that show how HRIS can facilitate and help HRM process. It is important to make differences between administrative and strategic role of HRIS (Kovach et al., 2002) in the HR fields. Lengnick-Hall and Moritz (2003) claims that HRIS can be implemented at three different levels: publishing of information, automation of transactions and transformation of HR into a strategic partner with the line business. Also, the role of HRIS varies among small and large organizations. Namely, in small organizations it tends to be informal while in large organizations it is more formal and coordinated (Singh et al., 2011).

HRIS can automate and devolve some traditionally routine administrative and compliance functions of HR departments and facilitate the HR outsourcing (Barron et al., 2004). Other authors stated that HRIS increases the administrative efficiency in terms of faster information processing, employee communications and greater information accuracy (Beadles, et al., 2005; Overman, 1992), lower HR costs and improvement of the HR productivity (Troshani et al., 2011; Wiblen et al., 2010).

HRIS also provides some contribution to the strategic direction of the firm since it provides HR professionals with the time needed to direct their attention towards more critical and strategic level tasks – leadership development or talent management (Lawler and Mohrman, 2003) and makes an opportunity for HRM to play a role as a support in strategic decision making (Troshani et al., 2011; Dery et al., 2009; Lawler et al., 2004; Hendrickson, 2003; Lengnick-Hall and Moritz, 2003). In the study in the UK it has been examined whether the goals stated by organizations for the introduction of e-HRM were actually achieved. The results demonstrated that e-HRM is introduced in order to improve efficiency, service delivery, standardization and organizational image, to empower managers and transform HR into a more strategic function. Efficiency, service delivery and standardization goals were commonly realized but no evidence was found of an actual increased involvement of HR in business decision making (Parry and Tyson, 2011).

Organizations perform different and very specific practices for managing people – planning, staffing, training and development, performance management, compensations and benefits, retiring, working conditions, health and safety, employee relations, retention and policies on work-life balance, etc. To get the maximum HRIS advantages it is necessary that technology is integrated with each HRM function in the company. The integrated HRIS is presented in Figure 1.

At the end of theoretical background it is also important to present main obstacles and challenges in HRIS implementation. According Stone (2011) the most important challenges of HRIS are

flexibility, confidentiality and legal problems. On the other hand, Singh et al. (2011) in case of banking industry founded that implementation of HRIS has to be accompanied with the process reengineering. One of the most overlooked implementation issues is organizational inertia: getting the staff to adopt and adapt to a new system, which is actually a new business process for them (Kovach et al., 2002, p. 46).

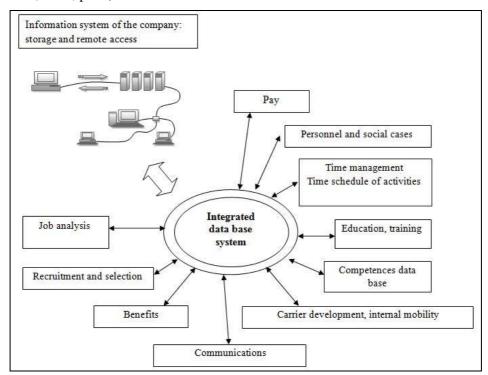


Figure 1: Integrated human resource information system (Karoliny and Poór, 2010, 457)

#### **METHODOLOGY**

In this paper CRANET methodology (www.cranet.org) has been used and data to identify the level of usage of HRIS in organizations from Serbia. This international organization under the patronate of the Cranfield School of Management organizes comparative researches on the policies and practices of human resource management, using a standardized questionnaire. The survey is undertaken approximately every four years. The purpose of the research is to provide high quality data for academics, public and private sector organizations, as well as HRM students, and to create new knowledge about human resource management practice in different countries of the world. In CRANET research period from 2008 until 2010 there were involved 32 countries, but for this analysis authors decided to explore only data for Serbian organizations.

CRANET methodology and data were also used in research of Russian HRM practice (Gurkov et al. 2012) and often discussed in scientific papers worldwide on many other HR activities such as compensations and benefits (Štangl-Šušnjar and Leković, 2009; Štangl-Šušnjar and Slavić), HRM outsourcing (Susomrith and Brown, 2013), training and development (Leković and Štangl-Šušnjar, 2010; McNamara, Parry, Lee and Pitt-Catsouphes, 2012). Methodology included the application of the program SPSS Version 17. The objectives of this analysis were to:

- Find out the kind of the HRIS that organizations in Serbia use;
- Find out the level of usage of HRIS for HR activities in Serbian organizations;
- Find out whether HRIS in Serbian companies have managers' and employees' self-service options.

## RESULTS AND DISSCUSION

First part of the analysis was dedicated to the exploration of the kind of HRIS used in Serbian companies. According Figure 2 it can be concluded that Serbian organizations usually do not use HRIS (36.2% of total number of organizations), and if there is HRIS, then that is a system that is included in wider MIS (29.8% of organizations). Beside these, in Serbian companies HRIS is in use as a single independent system (25.5%) but also as a number of separate tools for HR functions (8.5%).

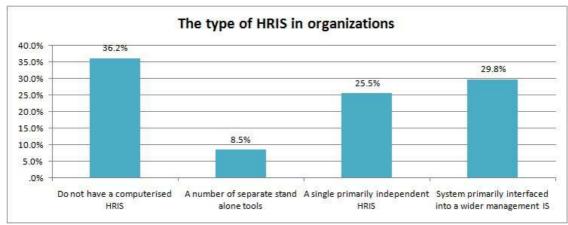


Figure 2: The type of HRIS in Serbian companies
Source: Authors' research

In Figure 3 there are presented data of the usage of HRIS for each HR activity in Serbian organizations. It can be concluded that HRIS is used mostly for administrative activities such as HR information and procedures (52.2% of all organizations), time registration and attendance (70.4%) and personnel records (100%). Also, HRIS is commonly used for compensations – 83.3% of organizations use IS for payroll and 57.7% for benefits. Generally, in Serbian organizations HRIS is still used at low level. This usage is very low for HR performance measurement (only 13.6% of organizations), career planning (9.1%), performance management (18.2%), training and development (50%), staffing (26.1%), health and safety (26.1%), etc.

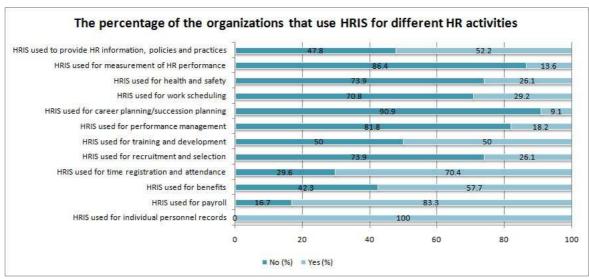


Figure 3: The percentage of the organizations that use HRIS for different HR activities Source: Authors' research

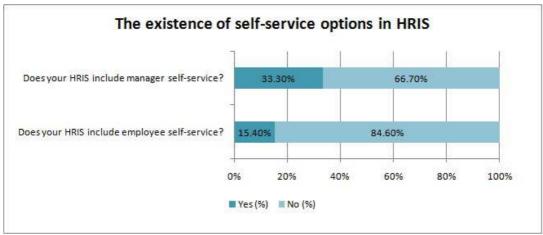


Figure 4: The existence of self-service options in HRIS Source: Authors' research

The last objective of the analysis was to explore whether HRIS allow self service options for employees and managers. From Figure 4 it is seen that in Serbian organizations there is no self service options. Namely, self – service options for managers as online tools whereby managers can complete HR processes exists only in 33.3% of all organizations. In case of employees this self – service options, as online tools whereby employees can access personal information and perform simple HR tasks such as maintaining personal data, exists only in 15.4% of all organizations. Generally, self service options are not included in HRIS in Serbian organizations.

### **CONCLUSION**

HRIS, as computerized tool that enables systematic procedure for collecting, storing, maintaining, and recovering data about human resources, personnel activities and organizational characteristics, was explored and analyzed trough theoretical and empirical studies in the past, but also presents novelty for many organizations which have recognized all the advantages of mentioned system. Benefits of integrated HRIS include improvement of administrative but also and strategic HR activities (leadership, decision making).

In this paper authors made the analysis of the usage of HRIS in Serbian companies. The main conclusions derived from the analysis are:

- In 36.2% of all Serbian companies HRIS is not used at all, and in 29.8% of organizations HRIS is used as a part of integrated MIS. HRIS is in use as a single independent system in case of 25.5% of organizations but also as a number of separate tools for HR functions (8.5%).
- HRIS is used mostly for administrative activities such as HR information and procedures (52.2% of all organizations), time registration and attendance (70.4%) and personnel records (100%). Also, HRIS is commonly used for compensations 83.3% of organizations use IS for payroll and 57.7% for benefits. Usage of HRIS is very low for HR performance measurement (only 13.6% of organizations), career planning (9.1%), performance management (18.2%), training and development (50%), staffing (26.1%), and health and safety (26.1%).
- Self service options for managers as online tools whereby managers can complete HR processes exists only in 33.3% of all organizations. In case of employees this self service options, as online tools whereby employees can access personal information and perform simple HR tasks such as maintaining personal data, exists only in 15.4% of all organizations.
- Generally, HRIS is at the low level of usage in Serbian organizations.

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