Human Resource Information Systems in Croatian Banks: Current Practice and Trends

Ivana Dvorski Lacković
PBZ stambena štedionica, d. d., Kukuljevićeva 17, Varaždin, Hrvaška
ivana.dvorski-lackovic@pbz.hr; dvorski.ivana@gmail.com

Abstract

Human resources are considered to be organizations' most valuable asset, therefore its adequate management is required. Information technology is believed to be crucial in human resource management in contemporary organizations. Banks are owing to their characteristics especially sensitive to human resource management: careful selection of employees is required, their training and performance need to be measured and tracked, legislative requirements regarding human resource management need to be met, but most importantly, employees need to be motivated in order to give better results. In this article the author gives a general overview of human resource information systems (HRIS) and their application in Croatian banks. A survey was conducted in order to explore current practice of HRIS usage in Croatian banking industry. Some of the researched areas include modality of HRIS development, functionalities it supports, general level of satisfaction with implemented HRIS and target aims when developing it. The results of the research support the findings of other similar researches in the world.

Key words: Human Resource Information Systems, Banking industry, Human Resource Management.

Izvleček

Informacijski sistemi za upravljanje človeških virov v hrvaških bankah: sedanja praksa in trendi

Človeški viri so najbolj dragocena dobrina vsake organizacije, zato jih je treba primerno upravljati. Pri tem je v sodobnih organizacijah vloga informacijske tehnologije ključnega pomena. Upravljanje človeških virov je v bankah zaradi njihovih posebnih lastnosti še posebej občutljivo; potrebujejo namreč skrben postopek izbire pri zaposlovanju, spremljanje usposabljanja in merjenje uspešnosti svojih zaposlenih ob upoštevanju zakonitosti, predvsem pa bi moralo upravljanje človeških virov motivirati zaposlene za doseganje boljših rezultatov.

V prispevku avtorica predstavi splošen pregled informacijskih sistemov (HRIS) za upravljanje človeških virov in njihovo uporabo v hrvaških bankah. V ta namen je bila izpeljana raziskava, ki ugotovi, kakšno je trenutno stanje glede uporabe HRIS v hrvaškem bančništvu. Nekatera raziskana področja vključujejo modaliteto razvoja HRIS, funkcionalnosti, ki jih podpira, splošno stopnjo zadovoljstva z implementacijo HRIS in doseženimi cilji. Rezultati raziskave so skladni z izsledki podobnih raziskav v svetu.

Ključne besede: informacijski sistem za upravljanje človeških virov, bančništvo, upravljanje človeških virov.

1   INTRODUCTION

Human resources are considered to be organizations' most valuable asset. Satisfied employees are a precondition for satisfied customers (Sinčić, Pološki, 2007). This statement is of special importance in banking industry where employees are exposed to interaction with clients on daily basis. The field of human resource management (HRM) can be characterized as having encountered frequent and numerous innovations in technology (Ngai et al., 2008). One of these is the implementation of Human Resource Information Systems (HRIS) in order to support HRM processes. Experience shows there are many advantages coming out of the adoption of HRIS, but also obstacles to its implementation. So far there are few research paper topics for HRIS in Croatia: HRIS practice in large Croatian companies (Markic et al., 2011), HRIS development at universities (Bambir et al., 2010) and HRIS in hotels at the Adriatic coast (Arnerić et al., 2007). In this article the author discusses different aspects of HRIS implementation in Croatian banking industry. In order to support the theory, a survey has been conducted among Croatian banks. This paper is divided in seven parts.

After introductory notes, the author gives general overview of Human Resource Management and contemporary tendencies in the field. Following are the

endencies in HRIS development and its implementation in banking. After presenting the conducted survey and discussing its results, conclusions are made.

2   HUMAN RESOURCE MANAGEMENT

Human resources are total knowledge, skills, creative abilities, motivation and loyalty an organization has on disposal. It is total intellectual and psychic energy the organization can employ on goals achievement and business development (Bahtijarević – Šiber, 1999, p. 16).

Human Resource Management (HRM) is commonly defined as a process of acquiring, training, appraising and compensating employees, and attending to their labor relations, health and safety and fairness concerns (Dessler, 2005, p. 4).

HRM is a sequence of interconnected activities and managerial tasks focused on insurance of adequate employee number and structure, their knowledge, skills, interests, motivation and behavior modalities necessary for the achievement of current, developmental and strategic organizational goals (Bahtijarević – Šiber, 1999, p. 17).

HRM aims are to (Armstrong, 1999, p. 4): provide a range of services which support the achievement of corporate objectives as a part of the process of running the organization; enable the organization to obtain and retain the skilled, committed and well-motivated workforce it needs; enhance and develop the inherent capacities of people – their contributions, potential and employability – by providing learning and continuous development opportunities; create a climate in which productive and harmonious relationships can be maintained between management and employees and in which feelings of mutual trust can be developed; develop an environment in which teamwork and flexibility can flourish; help the organization to balance and adapt to the needs of its stakeholders (owners, government bodies or trustees, management, employees, customers, suppliers and the public at large); ensure that people are valued and rewarded for what they do and achieve; manage a diverse workforce, taking into account individual and group differences in employment needs, work style and aspiration; ensure that equal opportunities are available to all; adopt an ethical approach to managing employees which is based on concern for people, fairness and transparency; and maintain and improve the physical and mental wellbeing of employees.

HRM, due to the quantitative complexity of the profession, coupled with its responsibility for enormous record-keeping, has a very long history of information technology experience in organizations and continues to be a leader in the implementation and use of IT (Townsend and Bennett, 2003).

3   GENERAL OVERVIEW OF HUMAN RESOURCE INFORMATION SYSTEMS

Human Resource Information System (HRIS) is defined as the composite of databases, computer applications and hardware and software necessary to collect/record, store, manage, deliver, present and manipulate data for human resources (Broderick and Boudreau, 1992).

HRIS is used to gather and maintain the data that describe human resources (HR), transforming data into information and then reporting the information to users (Ngai et al, 2008). HRIS is a concept which utilizes the development of Information Technology for effective management of the Human Resource functions and applications. It has emerged as an important interdisciplinary tool to achieve vital organizational Human Resource objectives. HRIS is applied in personnel administration, salary administration, leave/absence recording, skill inventory, medical history, performance appraisal, training and development, HR planning, recruitment, career planning, negotiations etc. (Singh et al., 2011). Nowadays HRIS is considered to be an integral part of Enterprise Resource Planning (ERP) system and thus supports a process-oriented view of organization and standardizes business processes across the enterprise (Nah et al., 2003). ERP system is a widely accepted solution to achieve an integrated enterprise information system (Bajgorić and Moon, 2009) because it integrates key functions of an organization, such as accounting, finance, human resources and support functions into one universal database.

The basic purpose of HRIS is:
- Insurance of an adequate information base for decision making process in human resources area;
- Development of a selection program, education, training, promotion, career planning, communication;
- Analysis of working abilities and employees' development potential;
- Complying working claims with individual possibilities and interests;

- Establishing needs for further qualification or knowledge renewal;
- Career planning;
- Ensure continuous analysis of structure, success and movement of human resources;
- Making reports on human resources;
- Enabling organizational analysis. (Bahtijarević – Šiber, 1999, p. 221)

Bahtijarević – Šiber (1999, p. 223) also points out that an organization must ensure data on working places, their basic characteristics and claims in order to be able to continuously comply working claims with individual possibilities.

For the purpose of this article HRIS is defined and will be considered as an information system whose basic purpose is the support of human resource management through facilitated processes of data collection, objective informing and decision making.

According to Panayotopoulou et al. (2007) there are several effects of technology on six key HR processes, namely:

- HR planning;
- Acquiring HR (recruitment and selection);
- HR evaluation (performance appraisal);
- Communication;
- Rewarding HR (performance appraisal, compensation and benefits); and
- Developing HR (training and development, career management).

Some authors discuss that the nature of HRIS varies among organizations in relation to their size. In small organizations, it tends to be informal, whereas in large organizationsit is more formal and coordinated (Singh et al., 2011). According to Ball (2001) the organizational size is a determinant, whether an organization has HRIS at all and whether it adopts certain modules over others (core personnel administration over training and recruitment). Ngai and Wat (2006) tried to determine the relationship between company size and HRIS adoption, and there were positive, statistically significant differences between the adoption of HRIS and company size, what shows that large companies are more likely to adopt HRIS. According to organizational size HRIS can be implemented at three different levels: publishing of information, automation of transactions or transformation of HR into a strategic partner with the line business (Lengnick-Hall and Moritz, 2003).

Many companies have problems when implementing new technologies, including HRIS, due to lack of sufficient capital and skills (Ngai and Wat, 2006). Therefore, companies are reluctant to implement HRIS, unless they are convinced in benefits the information system would bring to their organizations. The common benefits of HRIS include enhancement in executive decision making, employee training, technology usage, interdepartmental integration and better reporting structures (Mayfield, Mayfield and Lunce, 2003).

Beckers and Bsat (2002) pointed out at least five reasons why companies should use HRIS. This is what HRIS can do:

- Increase competitiveness by improving HR operations;
- Produce a greater number and variety of HR-related reports;
- Shift the focus of HR from the processing of transactions to strategic HRM;
- Make the employees part of HRIS; and
- Reengineer the entire HR function of companies.

A survey conducted by the Institute of Management and Administration in the year 2002 indicated that the biggest problems in managing HRIS include:lack of staff, lack of budget, problems with time management, need to work with other departments and lack of information technology support (Ngai and Wat, 2006). Since these are rather general obstacles that can relate to any information system, a list of more specific obstacles, when implementing and managing HRIS, would include:

- *Responsibility for HRIS design*: HRIS presents a field of intersection between human resource management and information and communication technology (Arnerić et al., 2007) and due to its interdisciplinary character in many cases it is yet unclear, who are key persons with adequate level of knowledge within the organization, responsible for basic HRIS design;
- *Compliance with legislation:* the field of HRM is regulated by several national laws and regulations. When making HRIS, all specific claims need to be taken into consideration in order to eliminate compliance risk;
- *Internal policies*: besides general "roof" policies that regulate information system management, specific policies about HRIS management need to be created and put into practice in the organization. This is especially important because of the sensitivity of the data that HRIS encompasses (personal data protection);

- *Measuring Return on Investment (ROI) of HRIS*: measuring ROI of HRIS is rather intangible. Therefore, management should develop a list of key indicators or ROI measurement methodology that would enable it to estimate benefits of HRIS more easily.

4 HUMAN RESOURCE INFORMATION SYSTEMS IN BANKING INDUSTRY

Banking sector started the technology adoption process early on and before other sectors (Panayotopoulou et al., 2007) owing to great global competition and struggle for clients. A satisfactory service level is the banks' competitive advantage. A contemporary client is no longer satisfied only with the availability of a product, he seeks active communication with the bank's employees. Therefore, the banks are starting to focus on the values they can get from their employees. Also, one must consider that there are more and more back office employees, who support front office operations and the employees exposed to the public.

HRIS has transformed banks' financial as well as non-financial processes from manual to automatic computerized systems (Singh et al., 2011). To be more precise, at the beginning of its development HRIS included mostly data on salary and financial benefits (financial processes). With time HRIS has developed and nowadays supports testing, recruiting, training and learning (non-financial processes). This statement is supported by several sources, who claim that HRIS is now being used not only for administrative purposes but also for strategic and business decision-making purposes (Broderick and Boudreau, 1992; Kossek et al., 1994; Kovach et al., 2002; Ngai and Wat, 2006). Having this in mind, it becomes clear, why HRIS is relevant to contemporary banks and their management.

There are many questions related to HRIS implementation in banking that are awakening interest. Does HRIS depend on banks' size, measured in number of employees? Is banks' size one of prerequisites for the investment of larger amount of funds into HRIS? The greatest barrier to the adoption of HRIS is according to some researches the insufficient financial support (Ngai and Wat, 2006). How is HRIS developed, internally or externally? IS personnel possess some technical skills, derived from training and experience, that allow them to perform IS functions, i.e. develop and implement new IS applications, operate the IS to provide the services required, maintain the IS running and/or conceive , plan and exploit IS applications to support and enhance other business functions (Alvarez-Suescun, 2007).

What functionalities are supported by HRIS? Are employees active users of HRIS or are they passive information givers for the needs of management data collection?

5 RESEARCH: HUMAN RESOURCE INFORMATION SYSTEMS IN CROATIAN BANKS

In order to research the state of the art of HRIS implementation and its usage in Croatian banks, a survey was sent to all Croatian banks (*n*=33) during September 2011 with a request to forward the survey to the employee in charge of human resource management. The response rate was 27.27 % (the absolute number of surveyed banks was 9), which is within the expected range. A similar research achieved a response rate of 29 % (Ngai et al., 2006; Ngai et al., 2008) and 24.4 % (Ball, 2001).

The banks that answered survey questions for the research were divided according to two criteria The first was the criterionof Croatian National Bank that classifies banks as small, medium and big. One survey question was the number of bank employees and that was the second criterion for bank classification. The structure of the surveyed banks according to the first criterion and its comparison to the structure of all Croatian banks according to their size is shown in Table 1.

Most of the surveyed banks are considered small (5), follow big banks (3) and finally a medium size bank (1). This distribution is considered normal and satisfactory for the needs of the research since the structure of banks' size in Croatia is similar.

Table 1: **Comparison of all Croatian banks and surveyed banks' size**

Bank size	All Croatian banks	Surveyed banks
Small	24	5
Medium	3	1
Big	6	3
TOTAL	33	9

Table 2 displays the number of employees in the surveyed banks. 4 surveyed banks are within the category of 200 to 500 employees. The number of the surveyed banks' employees can be considered compliant with the bank's size.

Table 2: **Structure of the surveyed banks according to the number of employees**

Number of employees	Number of banks
Less than 200	2
200–500	4
501–1000	0
1001–2000	1
2001–3000	1
More than 3000	1
TOTAL	9

The findings of the research indicate that all the surveyed banks have a separate organizational unit in charge of HRM. Also all the banks have implemented HRIS. The year of HRIS implementation is shown in Table 3.

Table 3: **Structure of the surveyed banks according to the year of HRIS implementation**

Year of HRIS implementation	Number of banks
2000	3
2002	2
2003	1
2004	1
2007	1
2008	1
TOTAL	9

All three big banks and one medium size bank from the sample stated that the year of HRIS implementation was in the period from 2000 – 2003. In the same period only two banks from the sample that are considered small implemented HRIS. This leads to the expected conclusion that big banks had the opportunity to develop HRIS prior to small banks.

Another interesting finding of the research is that no significant connection has been found between bank size and modality of HRIS development: 5 surveyed banks outsourced HRIS development compared to 2 banks that developed it within banks organizational units and 2 banks that used cooperation of an outsourced company and internal resources (Table 4). Outsourcing was used by three small, one big and one medium size bank. One big and one small bank from the sample developed HRIS internally. Also one big and one small bank from the sample used cooperation of internal and external resources for HRIS development.

Table 4: **Structure of the surveyed banks according to modality of HRIS development**

Modality of HRIS development	Number of banks
Internally	2
Externally	5
Cooperation	2
TOTAL	9

Alvarez – Suescun (2007) discussed that firm's internal factors, such as HRIS implementation capability and the strategic contribution of HRIS, determine whether that activity is undertaken internally or outsourced, whereas the technical skill set and the firm's size do not affect that decision and that seems to be confirmed by this research since both big and small banks used all three modalities of HRIS development and no statistically relevant correlation between the bank's size and the decision whether to outsource HRIS development had been found. Alvarez – Suescun (2007) also points out that possessing a HRIS implementation capability is a necessary condition for insourcing this function, but is not sufficient inducement to initiate the process. The capability needs to be superior (relative to other firms), i.e. enable the firm to implement the HRIS cheaper and faster while obtaining an application better adapted to and more useful for its needs, in order to turn into a key determinant of IS sourcing decisions.

A very significant aspect of HRIS are its functionalities. They can offer basic features or be a strategic decision making HRM tool. In order to research the "content" of HRIS, a list of functionalities had been made. This list is a synthesis of relevant employees' data file (Bahtijarević – Šiber, 1999, p. 222), Croatian Labor Law and Credit institutions act claims. To explain this in detail, employees' data file should include their personal data, working experience, education, rotation within bank, salary data, data on employees' work success, working plans for future periods, benefits and stimulation data, data on absenteeism and disciplinary actions, psychological testing results, education plans, data on development potential, identification of highly potential employees, employees' specific working preferences and health data. According to Croatian Labor Law organizations have the obligation to monitor the data on vacation and working hours and according to Credit institutions' act all employees need to have access to

working places systematization and internal acts related to human resource management. Additionally, the author added two functionalities: self service for employees and internal job market.

Table 5: **Distribution of HRIS features in the surveyed banks**

Functionality	Number of banks
Employees' personal data	9
Data on employees' work experience	9
Data on employees' education	9
Data on employees' rotation within bank	9
Data on vacation	9
Salary data	9
Data on working hours	8
Data analysis and making reports	8
Working places systematisation	6
Data on grading employees' work success	5
Making employees' working plans for future periods	5
Benefits and stimulation data	5
Potential future employees' data (testing, selection)	5
Data on absenteeism and disciplinary actions towards employee	4
Employees' psychological testing results	4
Self service for employees	4
Education plans	3
Data on employees' development potential	3
Identification of highly potential employees	3
Internal job market	3
Internal acts on human resources and employees' rights	2
Employees' specific working preferences	0
Employees' health data	0

As can be seen from Table 5, all the surveyed banks included demographic data and data on vacation and salary in their HRIS. Some basic information systems prerequisites, like making reports and data analysis, are one of the basic features. About a half of the surveyed banks' HRIS includes specific data about employees, like grading their success, making working plans for future period, data on absenteeism or data on potential future employees. What is rather significant is the fact that most of the banks do not offer advanced HRIS features, for example education plans for employees, data on their development potentials, internal job market that would make employment process easier. The advanced HRIS features are used mostly in big banks, which is consistent with the results of the prior research that shows connection between company size and HRIS usage (Ball, 2001; Ngai et al, 2006).

Three big banks, one medium and one small bank from the sample stated that all the employees have access to some HRIS functionalities, what might be an indicator of the bank's usage of HRIS for active HRM that enables employees to be active participants in their own career management.

The following researchers' interest has been also to find out, whether the banks had identified different levels of authorization for the employees' HRIS usage. 8 surveyed banks have confined the rights to 'write' and 'see' because there are different levels of information an individual employee can access. As for data protection, all the banks answered that employees are familiar with the process of information collection, their purpose and use.

Another research question was a number of applications from which HRIS as centralized integrated database "pulls" its data. Most small banks are using one application as data source while big banks are getting data from more applications. This is consistent with previous findings on functionalities HRIS supports. To explain, small banks are focused on basic HRIS functionalities like payroll, personal data, working hours and big banks encompassed also advanced functionalities, like education plans or identification of highly potential employees. Therefore, it is necessary and expected for big banks to pull data from more sources. This distribution is shown in Table 6.

Table 6: **Banks' distribution according to the number of applications used for HRM**

Number of applications	Number of banks
1	3
2	3
3	0
4	2
5	1
TOTAL	9

When being asked about reasons for HRIS development, all three big banks and one small bank from the sample answered it was the wish for internal improvement of processes that was critical. Four small banks and a medium size bank said legal regulati-

ons were what made them implement HRIS. Among other reasons for HRIS implementation one big bank stated that the wish for a better quality HRM was also their guideline. The answers to this survey question are a nice indicator how big banks are more likely to develop HRIS for the reasons beyond pure legislative force.

As for the banks' satisfaction with HRIS, seven banks are satisfied with the implemented HRIS and have noticed improvement in HRM process.

6 CONCLUSION

Basic purpose of this article was to give general overview of HRIS state of the art and implementation in Croatian banks. Possible limitation of the research is that only 9 of 33 banks answered the survey, but since the survey response rate and the surveyed banks size distribution are found satisfactory, the survey can be considered a good indicator of current practice in Croatian bank industry. HRM is one of the most important strategic areas for the development of banks since their front office employees are in continuous interaction with clients and back office employees are responsible for the tasks oriented to constant service, product improvement and competition with other banks. This is where adequate HRIS is significant. It can be more than a tool for following the employees' basic demographic data and working hours. It can be a tool for identifying highly potential employees and directing them to areas of their working interest. It can give the management the information of not only what was done, but who had done it. It also enables it to give feedback and not just take disciplinary, but also rewarding actions towards employees.

The findings of the research are the following: big banks are more likely to develop advanced HRIS features than small ones (what is consistent with the findings of Ball, 2001 and Ngai and Wat, 2006), the bank size is not a relevant factor for outsourcing HRIS development (comparable with Alvarez – Suescun, 2007), HRIS in big banks gathers data out of more applications than HRIS in small banks, big ones are impelled by internal improvement and not just by legislative to develop HRIS.

The findings of this research can be used in business practice in small banks. They can use a list of HRIS functionalities listed in Section 5 and use it as a template for their HRIS improvement and its upgrading with advanced functionalities.

The future research related to this topic might include comparison of HRIS usage in the banks of the region, development of universal key indicators that can be used for measuring ROI on HRIS in banks or researching what factors influence the banks' decision on outsourcing HRIS development.

7 REFERENCES

[1] Alvarez-Suescun, E. (2007), Testing resource – based propositions about IS sourcing decisions, Industrial Management and Data Systems, Vol. 107 No. 6, pp. 762–779.

[2] Armstrong, M. (1999), Human Resource Management Practice, 7th ed., Kogan Page, London.

[3] Arnerić, J., Garbin Praničević, D., Tadić, I. (2007), The Use of human resource information systems (HRIS) in Croatian hotels on the Adriatic coast: A survey, Global Business and Economics Antology, Vol. 1, pp. 110 – 121.

[4] Bahtijarević – Šiber, F. (1999), Management ljudskih potencijala, Golden marketing, Zagreb.

[5] Bajgorić, N. and Moon, Y. B. (2009), Enhancing systems integration by incorporating business continuity drivers, Industrial Management and Data Systems, Vol. 109 No. 1, pp. 74 – 97.

[6] Ball, K. (2001), The use of human resource information systems: a survey, Personnel Review, Vol. 30 No. 6, pp. 677–693.

[7] Bambir, D., Hutinski, Ž., Drozdova, M. (2010), A Review of Some Basic Prerequisites for Human Resource Management Information Systems Implementation at the Universities, Proceedings of the 21st Central European Conference on Information and Intelligent Systems, Varaždin: Fakultet organizacije i informatike, pp. 297–303.

[8] Beckers, A. M. and Bsat, M. Z. (2002), A DSS classification model for research in human resource information systems, Information Systems Management, Vol. 19 No. 3, pp. 41–50.

[9] Broderick, R. and Boudreau, J. W. (1992), Human resource management, information technology and the competitive edge, Academy of Management Executive, Vol. 6 No. 2, pp. 7–17.

[10] Croatian National Bank (2011), Banks Bulletin, No. 22.

[11] Dessler, G. (2005), Human Resource Management, 10th ed., Pearson Education, Inc., Upper Saddle River.

[12] Kossek, E. E., Young, W., Gash, D. C. and Nichol, V. (1994), Waiting for innovation in the human resources department: Godot implements a human resource information system, Human Resource Management, Vol. 33 No. 1, pp. 135–59.

[13] Kovach, K. A., Hughes, A. A., Fagan, P. and Maggitti, P. G. (2002), Administrative and strategic advantages of HRIS, Employment Relations Today, Vol. 29 No. 2, pp. 43–8.

[14] Lengnick-Hall, Mark L. and Moritz Steve (2003), The Impact of e-HR on the Human Resource Management Function, Journal of Labor Research. 24(3), pp. 365–379.

[15] Markić, D., Horvat, J., Oreški, D. (2011), Human Resource Information Systems in Croatian Companies, Proceedings of ITI 2011, Zagreb: Sveučilišni računski centar, pp. 415–420.

[16] Mayfield, M., Mayfield, J. and Lunce, S. (2003), Human resource information systems: A review and model development, Advances in Competitiveness Research, Vol. 11 No. 1, pp. 139–152.

[17] Nah, F., Zuckweller, K. and Lau, J. (2003), ERP Implementation: Chief Information Officers' Perception of Critical Success Factors, International Journal of Human – Computer Interaction, Vol. 16 No. 1, pp. 5–22.

[18] Narodne novine (2009), Zakon o kreditnim institucijama, Zagreb: Narodne novine d.d. 153.

[19] Narodne novine (2009), Zakon o radu, Zagreb: Narodne novine d.d. 149.

[20] Ngai, E., Law, C., Chan, S., Wat, F. (2008), Importance of the Internet to human resource practioners in Hong Kong, Personnel Review, Vol 37, No. 1, pp. 66–84.

[21] Ngai, E., Wat F. (2006), Human Resource Information Systems: a review and empirical analysis, Personnel Review, Vol 35, No. 3, pp. 297–314.

[22] Panayotopoulou, L., Vakola, M., Galanaki, E. (2007), E–HR adoption and the role of HRM: evidence from Greece, Personnel Review, Vol. 36 No. 2, pp. 277–294.

[23] Sinčić, D., Pološki Vokić, N. (2007), Integrating internal communications, human resource management and marketing concepts into the new internal marketing philosophy, Working paper series, Paper No. 07–12, Faculty of economics and business, Zagreb.

[24] Singh, H. P., Jindal, S., Samim, S. A. (2011), Role of Human Resource Information Systems in Banking Industry of Developing Countries, The First International Conference on Interdisciplinary Research and Development, 31 May – 1 June 2011, Thailand.

[25] Townsend, A. M. and Bennett, J. T. (2003), Human resources and information technology, Journal of Labor Research, Vol. 24 No. 3, pp. 361–3.

∎

Ivana Dvorski Lacković graduated at Faculty of Economics and Business in Zagreb and is currently a PhD student of direction Information Science at Faculty of Organization and Informatics in Varaždin. The author has over five years working experience in Croatian banking sector. She is the author of several scientific papers in the interdisciplinary area of information science and economics.