

Contemporary management in a higher education institution in Serbia

Božo Nikolić, The Higher Education Technical School of Professional Studies,
direktor@vtsns.edu.rs

Jelena Dakić, The Higher Education Technical School of Professional Studies,
dakic@vtsns.edu.rs

Ljiljana Ružić-Dimitrijević, The Higher Education Technical School of Professional Studies,
ljdimitrijevic@gmail.com

Abstract

Over the past several decades, important changes in the Serbian society have affected the management system of all companies, as well as higher education institutions. These changes are mostly related to the attitudes of managerial staff that further influenced the employees in order to have an old hierarchical system replaced with the system of knowledge management. This paper provides several examples that illustrate how that has been applied in practice. The selected examples are crucial for adopting a completely new and different management approach in a state higher education institution where inherited patterns of management, work and professional conduct are present.

Keywords: management, knowledge, higher education

Introduction

In this paper we have tried to present just part of the problem related to knowledge management in Serbia, the country that has found itself between old inherited habits of the bureaucratic management system and new requirements of the world market.

There are a few quite different and sometimes even confusing definitions of knowledge management resulting from different perspectives on what it actually is. The simplest is the one set in the beginning when the term Knowledge Management (KM) was first introduced, which says: “Knowledge management is the process of capturing, distributing, and effectively using knowledge” (Davenport, Prusak1998, p. 107).

Then, there is another, more detailed and often quoted definition: “Knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise’s information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual workers” (Duhon, 1998). Finally, there is a brief and effective one, as well: “Knowledge Management (KM) is an effort to increase useful knowledge in the organization” (McInerney, 2002, p.1014).

In Serbia, which has been in a serious crisis for the past 20 years with a tendency to get even worse, knowledge is needed more than ever. Hence, it should be enlarged, used, and shared. Higher education institutions should be holders of this process. To respond in the right way, they must have management teams that will manage the organization and the content, producing highly educated and qualified graduates.

There are several ways to classify management, i.e. doing business. One of them is a classification into a classical industrial approach to business and knowledge management approach, or doing business in the age of knowledge (Nonaka & Takeuchi, 1995).

In the area of higher education, and within the beginning of the second five-year cycle of the Bologna Process, the need for significant changes in the management of higher education institutions has arisen. This need certainly implies abandoning the old management system, since management and business characteristics of the age of knowledge are in-line with the rules of the Bologna Process (The Bologna Declaration, 2000).

The characteristics of industrial business are forecasting, management hierarchy, application of the knowledge acquired during studies which become outdated with time, and an aspiration for securing material property. The technology and equipment are made by the same manufacturer and are of the same level. Due to rapid changes, technological obsolescence occurs. What characterizes business in the age of knowledge is the acceptance of surprise that is a consequence of unexpected events; creation of new knowledge and its continual renewal; the emergence of intangible assets such as knowledge and intellectual property; and business that sometimes looks as if on the brink of chaos. Due to major changes in the environment, it is hard to make predictions. Therefore, the acceptance of surprise as a part of a normal course of doing business is vital for survival and successful work. The strategy for dealing with unpredictable surprises is known both in theory and practice as *crisis management* (Drucker, 1999).

State higher education schools of professional studies in Serbia function independently, so it can be said that they are left on their own. They mostly do not have enough strength to fight for improvement of their status. They are between two possibilities: the first one is to surrender to lethargy and the easiness of working (i.e. not working) and living but without the means that provide a better life; the second one is to take action and try to provide those necessary means. In the case when the top management and entire managerial hierarchy are selected according to a membership in a certain party, it is hard to speak of good management and prospects for a better future. The people who occupy such managerial positions have insufficient knowledge and that results in the management approach based on arguments and the authority of force, while every effort is aimed at satisfying those who are in charge of their appointment. Therefore, such managerial staff fails to gain the necessary respect.

The second possibility is a rapid management activity which includes equally rapid managing decisions using knowledge management as an answer to all problems. Those kinds of managers, being independent and enterprising, are more valuable to the country as well. In order to do business and manage in that manner, both the knowledge of management and the knowledge which is to be managed must exist. In fact, what we have here is the process of creating;

gathering and using knowledge; and transforming it from individual to collective in order to achieve better business results. This is referred to as “knowledge management.” It also implies managing the knowledge of all participants in the process of education. The realization of this kind of management is accomplished by creating new knowledge on an individual basis and its multiple subsequent uses. Thus, it acquires collective significance and produces multiple effects. What is generated in this way is intellectual capital that does not depreciate, but grows in value (Lovrekovic, 2005).

Only this can be a response to the changeability of everything within a business system, and especially to the changeability of the outside world which is brought about by new products, new technologies, more diverse workforce and completely different needs.

Management in Education

The complete change in politics and business environment in Serbia has led to a significant change of roles and purpose of management (Law on higher education, 2005). Regarding the higher education, the changes of the law made in accordance with *the Bologna Process* have given rise to even bigger changes and introduced completely new categories into the management of education (Dakic, 2012).

What is expected from management is to set goals at the beginning of every year and to pursue them throughout the year and while realizing all its activities. The management’s development path from once resented “slave driver” to a contemporary cooperative management has led to the change in the purpose of management and its duties. To put it in a nutshell, that path went from an emphasis on giving orders to an emphasis on providing motivation (Pokrajac & Tomic, 2011). It is logical that the purpose and goals of management have changed over the course of time. Knowledge management is the only source of sustainable competitive advantage for the organization (Grant, 1996). Some of the goals that are characteristic of management in the recent times are the following:

- ***The increase in the overall income***, which implies the maximum of management’s activities, while that increase cannot be evaluated through raising the cost of services, or even scholarships.
- ***Development and introduction of the quality systems*** in all areas, in order to facilitate the managerial and organizational activities.
- ***Development of new curricula and new teaching methodology etc.***, in order to develop all elements of its system. Those can include: distance learning system, specialist studies, master studies, studies organized in the departments out of the institution’s headquarters, etc. (Krunic et al. 2006; Nikolic & Ruzic-Dimitrijevic 2008; Nikolic & Ruzic-Dimitrijevic, 2010).
- ***Intensive and continual work on improving student enrollment*** on all study programs by using various means of promotion.

- **Promoting the work of their own laboratories** by putting them into operation and at the disposal of economic systems and local communities, as well as by establishing new laboratories.
- **Continual examining and enhancing the quality of studies** in order to improve enrollment, especially of quality students (Ruzic-Dimitrijevic & Nikolic, 2013).
- **Continual improvement of working conditions** both for professors and students by modernizing the equipment and facilities.
- **Participation in public contests** for carrying out the projects that can provide certain funds and development of scientific and research work.
- **Special attention should be paid to improving and developing teaching and non-teaching staff** through cooperation with foreign countries and the economy, participation in scientific events, specializations and professional training, as well as by organizing conferences and issuing publications (Nikolic & Ruzic-Dimitrijevic, 2011).

The managing of a higher education institution in today's conditions of an open market requires highly trained managers. Their training includes the knowledge of the economic principles of business in the world; efficient use of the latest information technologies; good command of foreign languages; highly developed communication and negotiation skills; and intrinsic leadership qualities (Petrovic et al., 2012).

According to Adizes (2008), there are four roles that management has to perform, if it is to be successful in running of an organization; even a higher education institution. The first role that the management has to accomplish is the production of results – the role of a producer (P). The second one is the role of an administrator (A), which implies a responsibility to systematize organizational processes and to do the right things in the right order. The next role is being an entrepreneur (E), which means that a manager must be a visionary who has to foresee which direction an institution will take. The last one is the role of an integrator (I) who has to build a system of values that will motivate the individuals in an organization to work together. However, it is impossible to combine all four roles and to look for them in just one person. It is necessary for a good manager to possess and master at least one of those four roles.

Managers in all countries do the same job and the only difference lies in the way it is done. Every manager has a duty to recognize the distinctive features of their culture and to use those features while performing their managerial duties (Drucker, 2006)

Examples of Good Practice

Not only knowledge, but also a skill is necessary to meet the numerous requirements imposed by the standards for accreditation (Accreditation in higher education, 2010). This procedure includes a number of activities. It begins with a decision to accredit the curriculum, which is followed by complying with particular requirements regarding the staff, equipment, facilities and

other similar conditions prescribed by the state standards. The fulfillment of the set conditions is a prerequisite for realization of quality study programs and teaching. However, it is still only a prerequisite: the system has been set up, but it has to be run, as well.

Enrollment The business system in the field of education is said to be successful if it has good enrollment, i.e. a sufficient number of students. The question is how to achieve the sufficient number of students when, nowadays, professional studies are also conducted by state faculties and numerous private higher education institutions. It is clear that you must have something additional to offer, if you want to be attractive. A school has to be flexible and capable of reacting in accordance with the needs and requirements of the market.

The offer should be made in a timely manner, which means that a need has to be recognized in due course of time or it will be late. The curricula should be constantly adjusted to the needs of the society and interests of prospective students. Information necessary for decision-making aimed at development of new programs should be obtained in the surrounding area and by conducting research. All these activities have to be followed by adequate promotion. Besides visiting secondary schools, prospective students should be invited to visit modern laboratories to attend lectures and demonstrations. Also, organized meetings of schools' basketball teams (Nikolic & Ruzic-Dimitrijevic, 2013) should be arranged and exhibitions of students' work displayed in smaller towns.

It is not lower prices, but the attractiveness of the curriculum and quality of teaching that command attention and increase the interest in enrollment. Knowledge and skills are also needed to ensure this. It is also necessary to be up-to-date with technological development and to constantly introduce new contents that provide students with adequate and contemporary knowledge (Krunic et al. 2006; Nikolic & Ruzic-Dimitrijevic, 2010).

Reasonable prices and higher rates of collecting payments are the next steps that lead to success, but this is not easy to achieve in Serbia. It might be concluded that there is a whole series of managerial activities which have to be accomplished without delay in order to achieve success.

Information systems Schools are encouraged to digitize their teaching materials and to use the offered information system for communication with students or staff (Seufert, 2002). A good example of knowledge management is providing support to all student activities by means of information technologies in a completely new system of studies. This has secured good business performance, provided total control of the system in every moment, and enabled a quick response to any change. As a result, high quality and reliability of work have been accomplished (Lovrekovic, Nikolic, & Ruzic-Dimitrijevic, 2007; Ruzic-Dimitrijevic & Nikolic 2008).

Our School's Information Technology (IT) team is developing the software that supports student databases; conventional and distance learning system; and tracking teaching process and students' results. The participation of our prosperous students from undergraduate and specialist studies in this process is especially important. The teaching staff supervises the students who are familiar with basic and advanced IT techniques and wish to apply their experience from the clients' point of view in order to improve the information systems that meet the needs of students

and professors, as well as the School administration. Thus, they are a valuable part of this team and work with a lot of enthusiasm.

That source of positive energy has great support from the management. They promote a new idea that every professor should gather students and lead them into the world of knowledge, occasionally letting them relish their ideas, because a young spirit of research will achieve impressive results, if it is well-guided. We are currently negotiating with a broker company that is developing software for recruiting our students for its projects.

An established system for tracking and controlling the results of students' work and success provides multiple opportunities. Management's response to negative occurrences is immediate, in other words, continual over the school year. The goal is to keep a sufficient number of students on the state budget funding, which means that they have to acquire a necessary number of European Credit Transfer System (ECTS) credits. That is realized by creating the balance between pre-exam obligations and the final examination, together with a timely response, and through establishing a different communication paradigm between professor and student. This can be achieved because the knowledge of all elements of the system and work is readily available and any kind of correction can be easily made to it, so that necessary information can be provided. Information regarding the current state of an individual or a whole group is available at any moment. In addition, an individual can also manage his/her own resources. All the above-mentioned facts provide ample opportunities for good business performance.

If you have a thousand or several thousand students and each one of them has their own problems and needs, an organized, orderly, and formalized approach to problem-solving is not only the best, but the only possible solution.

Practice Why are professional studies better than academic studies? What are their advantages? Professional studies, both in our educational systems and other, are expected to relate to practical work. Being shorter and more flexible brings them a comparative advantage in present times since curricula have to be regularly changed and updated to stand the pace of all innovations in the market. Furthermore, it is important to enlist the cooperation of the economy and obtain feedback regarding necessary knowledge and skills of our graduates. This is enabled by the quality practice (Nikolic & Ruzic-Dimitrijevic 2012).

Knowledge is also gained from the beneficiaries and together with other available knowledge it helps in responding to the challenges of the market. The economy has its needs for staff of a particular profession who has to be available as soon as possible. Unfortunately, many young people cannot find employment. Our students should gain enough experience for their future vocations through practice; it lasts for two and a half months with our School, as opposed to two weeks with other facilities; while we have the information that in America a three-month period of practice is considered to be too short.

The university staff used to be absolutely unprepared for working in practice. Unfortunately, it might be the case even today. Schools of professional studies have to prepare their students for various kinds of jobs and provide them with competitiveness in the labor market both in terms of

theoretical knowledge and practical skills. However, in order to successfully accomplish this goal, every individual must participate in this process, which means that management has to delegate responsibilities to every employee who is, actually a knowledge worker and a member of the team. Naturally, the teams, as well as the organization, are subject to change should the need arise. For example, if one of the ways to stimulate employment and simultaneously enhance the quality of teaching is the realization of internship at a company during the sixth semester, then elimination of that idea must not be allowed, which might be easily done by equating such practice with a former concept that included fifteen days of signed-in attendance.

Conclusion

It is expected that in the near future up to 40% of the population of Serbia, aged between thirty and thirty-five years old, will have experienced higher education, which means they would be able to easily change their work environment (Education development strategy in Serbia until 2020, 2012). It is certain that the concept of lifelong learning and distance learning systems will further facilitate this. These facts indicate that there is a need for a completely new way of management, and that is knowledge management. One of its characteristics is the promptness of decision-making and drawing on profound knowledge of individuals, managers, and all members of staff. In addition to high expertise, every person is expected to show considerable inventiveness, creativity, and positive ambition, which can be further developed over the course of time and through education.

If in a country of four citizens, one works but gets no salary, the second one works and has an average salary of €400, the third one does not work at all, whereas the fourth citizen is retired, or in other words, if 4000 candidates apply for 100 job vacancies, then such data points to the obligation of much more careful management of higher education institutions. The decision regarding the kind of study programs, the number of enrolled students, the structure, and content of the studies, as well as other details has to be prompt, concrete, quality and realistic.

The above-mentioned facts imply the growing need for management and leadership styles that comply with the specific nature of the university. It is obvious that the intentions are not in-line with the perception of the staff. Being the main industry, higher education demands serious management. Hardly can there be a plausible argument against this statement. At the same time, higher education is a unique organizational type that is characterized by a professional autonomy, multiple long-term goals, organizational distribution, and decision-making on various levels. Those have always been the typical characteristics of a university and they should be still taken into consideration despite the changes in the work environment (Coates et al., 2010).

References

Akreditacija u visokom obrazovanju (Accreditation in higher education), (2010). Ministarstvo prosvete Republike Srbije (Ministry of Education of the Republic of Serbia), Belgrade <http://www.kapk.org/index.php>

Adizes, I., (2008). *Idealan menadžer (Ideal manager)*. Asee, Novi Sad.

- Coates, H., Dobson, I., Goedegebuure, L., Meek, L. (2010). Across the great divide: what do Australian academics think of university leadership? Advice from the CAP survey. *Journal of Higher Education Policy and Management* 32(4): 379-387.
- Dakic, J., (2012). Uloga i značaj menadžmenta u visokom obrazovanju (The role and importance of management in higher education), *SYMORG; XIII International Symposium Innovative management and business performance*.
- Davenport, T. H., Prusak, L., (1998). *Working knowledge: How Organizations Manage What They Know*. Harvard Business School Press, Boston.
- Drucker, F. P., (1999). *Management challenges for the 21st century*. Harper Business, New York.
- Drucker, F. P., (2001). *The essential drucker*. Harper Business, New York.
- Duhon, Bryant (1998), It's All in our Heads. *Inform*, September, 12 (8), pp. 8-13.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, pp. 109-111
- Kronic, T, Ruzic-Dimitrijevic L., Petrovic, B., & Farkas, R. (2006). Web design curriculum and syllabus based on web design practice and students prior knowledge. *Journal of Information Technology Education*, 5(5), 317-335.
- LovrekoVIC, Z. (2005). *UticaJ koncepata upravljanja znanjem na povećanje sposobnosti studenata za kreiranje novih radnih znanja u budućim radnim organizacijama (The influence of knowledge management concepts on the increase of students' ability to create new work knowledge in future work organizations)*, Conference On the road to the knowledge age, Serbia.
- LovrekoVIC, Z., Ruzic-Dimitrijevic, L., & Nikolic, B. (2007). Information system implementation based on process approach at higher education institutions, *Proceedings of the 2007 Computer Science and IT Education Conference, Mauritius*, pp. 454-461.
- McInerney, C., (2002). Knowledge management and the dynamic nature of knowledge. *Journal of the American Society for Information Science and Technology*, 53(12) pp.1009–1018.
- Nikolic, B., & Ruzic-Dimitrijevic, L., (2008). Specijalističke strukovne studije na visokoj strukovnoj školi (Specialist professional studies at a vocational higher education school), XIV Skup Trendovi razvoja: efikasnost i kvalitet Bolonjskih studija, Serbia, pp. 140-144.
- Nikolic, B., & Ruzic-Dimitrijevic, L. (2010). Distance learning – from idea to realization, *Proceedings of Informing Science & IT Education Conference, Italy*, pp. 369-384.
- Nikolic, B., & Ruzic-Dimitrijevic, L. (2011). Упоредна анализа основних правила студија у Србији и неким земљама Европе и Америке (A comparative analysis of the basic study rules in Serbia and some countries of Europe and America.). XVII Skup Trendovi razvoja: Evropa 2020: društvo zasnovano na znanju, Serbia, pp. 114-118.
- Nikolic, B., & Ruzic-Dimitrijevic, L. (2012). Model visoke strukovne škole – praksa kao kvalitet ili varka i zabluda (A model of the vocational higher education school – the practice as a

- quality or a deception and delusion), XVIII Skup Trendovi razvoja: Internacionalizacija univerziteta, Serbia, pp. 210-214.
- Nikolic, B., & Ruzic-Dimitrijevic, L. (2013). Sport in higher education institutions (Sport u visokoškolskim ustanovama) XIX Skup Trendovi razvoja: Univerzitet na tržištu, Slovenia, pp. 166-166.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company: how Japanese companies create the dynamics of innovation*, New York: Oxford University Press
- Petrović D., Filipović V. Ilić B., Jaško O., Milićević V., Čudanov M., et al. (2012). *Menadžment i organizacija* (Management and organization), FON Beograd.
- Pokrajac, S., & Tomić, D. (2011). *Menadžment* (Management) Alfa-graf Novi Sad.
- Ruzic-Dimitrijevic, L., & Nikolic, B. (2008). Designing and building an information system for a higher education institution, *Proceedings of the Informing Science & IT Education Conference 2008, Bulgaria*, pp. 283-300.
- Ruzic-Dimitrijevic, L., & Nikolic, B. (2013). Elements of recognition of studying after “Bologna system” (Елементи препознавања студирања по болоњском систему) XIX Skup Trendovi razvoja: Univerzitet na tržištu. Slovenia, pp. 191-195.
- Seufert, S. (2002). Design and management of online learning communities. Paper presented at the 2nd Annual Conference on Innovative Research in Management, Stockholm, Sweden, 9-11 May
- Strategija razvoja obrazovanja u Srbiji do 2020. godine* (Education development strategy in Serbia until 2020), (2012). Vlada republike Srbije, Ministarstvo prosvete i nauke. The Government of the Republic of Serbia, Ministry of Education and Science, Belgrade www.kg.ac.rs/doc/strategija_obrazovanja_do_2020.pdf
- The Bologna Declaration. (2000). *On the European space for higher education: An explanation*. Retrieved November 9, 2012, from <http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf>
- Zakon o visokom obrazovanju* (Law on higher education), (2005). Službeni glasnik RS, (Official Gazette of Republic of Serbia) 76/2005, Belgrade, Serbia. www.uns.ac.rs/sr/zakon/zakon.html

Biographies

Bozo Nikolić is a professor at the Higher Education Technical School of Professional Studies, Novi Sad, Serbia. He teaches courses in the fields of mechanical engineering and labor safety. He got his PhD degree in mechanical engineering at the Belgrade University in 1998. His areas of expertise are metal cutting tools, accessories, and risk assessment regarding workplace and workspace. He is director of the Higher Education Technical School of Professional Studies.

Jelena Dakić is secretary at the Higher Education Technical School of Professional Studies, Novi Sad, Serbia. She finished the Faculty of Law in Novi Sad in 2004. After two years of

practice in a law office she passed the bar exam and worked for some time as a lawyer in Novi Sad. She completed a Masters degree from the Faculty of Law in Novi Sad, in 2012, and enrolled postgraduate studies at the Faculty of Organizational Sciences in Belgrade, Department of Management.

Ljiljana Ružić-Dimitrijević is a professor at the Higher Education Technical School of Professional Studies, Novi Sad, Serbia. She teaches courses in Computers, Introduction to web design, and Development of the Internet. She got her MSc degree in mathematics at the Centre of Multidisciplinary Studies, Belgrade in 1991. Her field of expertise is web design and risk assessment regarding IS. She is pro-dean in charge of tuition.