

INTERNET BASED LEARNING AS A PART OF PERMANENT EDUCATION – THE IMPACT ON THE SUSTAINABLE DEVELOPMENT OF ENTERPRISES

Hrvoje Budić, M.Sc.¹

¹Polytechnic of Pozega, Republic of Croatia, hbudic@vup.hr

ABSTRACT

Today, due to more rapid and significant changes in business environment, both, in profit and nonprofit sector, market subjects seek to reduce development cycles and commercial exploitation of products, improve services to final users and promote the quality of products and services in accordance with the principles of sustainable development. Influencing quickly to the limitation of the knowledge, to the continuous production of new insights which are necessary for qualitative shifts in all business areas, creating new needs for specific knowledges and its application, technological development causes intense orientation to permanent education and ongoing development of human capital as a foundation for the strategic orientation of the company. Herein, the special role is the role of information and communication technology (ICT), especially Internet, which today appears as a fundamental industry of the future and basic infrastructure of society, the generator of economic success and instrument of connection with the international community. Internet is easily accessible, interactive, diverse and experimental. Using its advantages, due to growing information communication and digital literacy, instead of people ideas travel, and costs are significantly reduced. In that context, this paper will present the impact of benefits of the Internet as a tool of education on the sustainable development of enterprises.

JEL Classification: I25

Keywords: Permanent education, Internet, Internet based learning, sustainable development.

1. The importance of permanent education in the modern market economy

The concept of education we meet in everyday conversation, in educational and social circles. As a historical and social category it is directly related with the needs of production of material goods, with the development of science and technology, and with the ideology which is incorporated into a variety of targets in accordance with the political system of the society. Today, in a knowledge society its role is crucial in creating competitive advantage of an enterprise and national wealth of a country (Vidulin - Orbanic; 2007, 57). Today, permanent education is becoming one of the most important forms of management of human resources. Modern companies use more of their resources into the education and training of employees. Permanent education and training of employees is increasingly understood by the management as one of the most effective ways of achieving competitive advantage and as the fundamental assumption of entering to the market competition. This knowledge is a result of large and rapid change in the external and internal environment of modern companies, which knowledge, constant innovation and learning a new one puts in the forefront of economic development (Bahtijarević - Šiber; 1999, 717). Dynamic changes which happens in the society and in the economy of European Union determine the need for constant innovation and acquiring of new job skills. Modern companies increasingly dedicate resources to the education and continuous training, and the investments in education are becoming a key indicator of understanding what is happening in modern global business and competition. Formal education that one acquires in the educational system is only a basis for further specialization and experiential learning. Globalization of competition creates new business conditions that requires fast and efficient adjustment of business subjects. Employers can no longer secure permanent employment, but instead of that they can ensure permanent education and upgrading of knowledge and skills so employees can look for a job either in their company or elsewhere. In that context, the concept of employment appears, which for individuals means the obligation for continuous learning and development, monitoring changes in knowledge according to the needs of the labour market. Educational process of human resources has a complex character considering it contains variety of activities starting from identification of educational need up to evaluation. Different methods are implemented in accordance with placed targets, levels and educational programmes. Instructions, rotation, professional practice, mentoring, lecturers, conferences, case methods are some of the numerous methods that can be implemented in the training and development of employees. Special attention

should be given to the choice of the most appropriate method, trainer, and the responsible person for the success of its implementation (Poslovni forum; 2010).

Permanent education is generally accepted as a learning activity throughout life with the aim of improving knowledges, skills and abilities within personal, civil and business perspective. The concept was adopted in 1971. by the Council of Europe, but in some societies it is differently defined and implemented. It includes the following forms of learning activities (Maravić; 2003, 34):

- **formal education** - based on programmes approved by the Ministry of Science, Education and Sport for the acquisition of knowledges, skills and abilities in order to acquire publicly recognized educational level;
- **non - formal education** - it consists of structure programmes oriented at training to work, of different social activities and personal development. It is performed independently from formal education in different institutions (institutions for adult education, in enterprises, NGOs, syndicates, etc.), and usually does not leads towards the acquisition publicly recognized diploma;
- **informal education** - person learns from experiences and resources which are founded in its environment that may not be conscious process. It is accomplished by the increased accessibility of books, magazines, newspapers, movies, and especially through the Internet and communication technologies and media (Tadin; 2007, 145).

1. 1. Permanent education in enterprise

In the past, the training for the work position in the working world has not been so much attentioned, so the scientists faced the fact that continuous improvement and the maintenance of competence of existing employees is necessary. Through the history of the business employers in some way introduced the employees into the business process, whether they were giving them directions by themselves, or used more experienced employees as educators and/or coaches. Rapid pace of technological development forced employers to provide organized care for its employees, which in larger organization led to the construction of various training models. Over time, those systems extracted less or greater results, which in the long run gave effects to the financial standings, so organizations understood the benefits of describing the educational system. Education in the enterprise is the area of its activity which is closely connected and positioned in the personnel services/departments of Human Resources, departments of training, etc. General Conference of UNESCO 1976th

accepted the following definition of concept of adult education: it denotes entire body of organized educational processes in all of its contents, levels and methods (formal or otherwise), regardless of whether the adult continue or replace its education or apprenticeship, whether the person develop its skills, expand its knowledge, improve its technical or professional qualifications, or divert it and lead to the changes in attitudes or behavior in the perspective of full personal development in a condition of participation in balanced and independent social, economic and cultural development (Žiljak; 2002, 116). In the Republic of Croatia, the present content of adult education should be analyzed in the context of previous development trends. Primarily, in the framework of former Yugoslavia which was part of the educational system of adults institutional network (workers' and people's universities, training centers for education of staff in enterprises, institutions of educational system, andragogy schools, etc.). The programme was performed in surpassing mode by seminars and other forms of adult education which exclusively had compensatory function (catching up negligence in education, retraining, requirements for higher level of professional training, etc.). After 1991., the restructuring of the economy leads to the extinction of many enterprises and the developed systems of adult education in enterprise's educational centers. Private initiatives and privatization in setting up small businesses required new profiles of job qualifications for which there was no willingness of investment in education because of high level of unemployment and low living standard. Existing network of adult education has changed significantly in terms of developing some organizations that have been transformed into a different forms of formal, non-formal and informal education of adults. Yet, 2001., when the strategy of development was adopted, it came to the significant changes in which adult education has an important place as a part of conception of lifelong education. In that context, adult education takes on a new dimension of lifelong learning (further development and training). Table 1. presents the percentage of employees who are educated for work before 2000.

Table 1. Education while working

Education	at %			
	1975.	1987.	1992.	1996.
No	51,1	88,5	85,8	80,05
Yes	48,1	11,1	13,7	18,09
Without the answer	0,2	0,4	0,5	0,6
Total	898			

Source: (Marušić; 2006, 235)

In 1975. 48,1 % surveyed employees are educated to work, and from work, in different ways (seminars, courses, formal education...) which led to the dramatic drop to 11,1 % in 1987. In the nineties the situation is improving, but far behind the situation in 1975.

According to the research of recruitment portal My Job, called “ educational needs and offers of professional education in Croatia 2009th”, in Croatia 40 % of the companies organized training and education of its employees, while 20 % organized training of managers. Needs for additional training of employees are twice as bigger compared to their practical implementation. Also, 70 % surveyed employees attended some form of additional education mainly financed by themselves (Moj Posao; 2009). According to an analysis of an Institute of Public Finances from 2010., called “ The analyze of educational needs of small and medium enterprises and craftsmen with special emphasis on entrepreneurial skills”, in relation to the educational needs of small and medium enterprises, the following can be seen: the process of formal education is lasting and it takes a long time to make significant changes in the current structure of employees. Any changes in this sense could be seen in a several years if the company has a high rate of employee turnover taking into account employment the ones who are more competent and educated than the previous, or if the company or employees invest in themselves in order to achieve higher levels of formal education. However, it seems that insignificant number of people in total population invest in formal education after employment, but they are more dedicated to invest in training through courses, workshops, seminars, etc. Internet shows as a very important communication tool as it is on every question about it's use in business in various forms the 39 % of respondents answered affirmatively. The largest percentage of companies, 99 %, use electronic mail in ordinary business. After it, e-banking follows, e-presentations, etc. The main reasons for not using the Internet are reflected in the lack of need (51 %). All other options are relatively small, so only a small percentage (10 %) is related to the lack of development of information skills, and about 11 % claims that there are no resources for computer equipment or the acquisition of information knowledges or skills (6,5 %). Some respondents indicated that they plan to improve the use of the Internet, some externalized certain activities, while some said that individual services are too expensive and because of that they don't use it (hgk; 2010, 28-29). In the Republic of Croatia systematic and continuous investment in business education is mainly associated with the large and medium - sized companies, while some of them we can freely call the champions of organizational learning (such as Ericsson Nikola

Tesla, Podravka, Kraš, Ina, Pliva, etc.), because in educational trends they are next to the side of West. They provide to their employees/trainees multidisciplinary knowledge of finance, sales, “soft skills“ such as employee motivation, leadership skills, etc., to the external MBA (Master of Business Administration) programmes of manager development in order to keep pace with specialistic knowledges. Medium - sized and smaller companies which do not have a separate department or a professional for conducting a training and education rely on the services of other organizations (Svan Consulting; 2008). The main sources of business education are: consulting firms, educational and training centers (in companies), business institutes, business schools, universities (colleges). The most important role in the process of education has managers, which, except participation in educational process as a participants of some programmes, appears in the role of internal coaches. In smaller enterprises this way of education is cheaper technique where resources are used from more experienced employees who transfer their knowledge to other employees (Bogdanović; 2009).

2. Sustainable development as an uncontroversial fact of modern business philosophy

In today's turbulent period, individuals, companies, and everyone involved in the development of global economy, have to be aware more than ever, about the consequences of its actions because irrelevant details that we neglect in everyday life can have far-reaching consequences. In the spirit of such philosophy organizations have to raise awareness of the necessity of corporate social responsibility, in accordance with the principles of sustainable development. The idea of sustainable development was created by connecting different impacts of the development with an inevitable impact on widely understood environment, and begins on the balance between economic growth, social progress and environmental concern. Purpose of sustainable development is meeting the needs of the present without jeopardizing ability of future generations to meet their own needs. In their business policy, in order to be successful and competitive, along the financial and environmental responsibility, companies have to implement and responsibility to the social community. In the past 20 years, the concept of sustainable development is involved in almost all fields of human life considering the limitations of the Earth where we live (increased population, limited natural resources, unequal development of various countries, etc.). The most quoted definition of sustainable development is certainly the one from the Brundtland's report from 1987. which described it as: *the pro-*

cess of changes in which the exploitation of resources, direction of investments, the orientation of technical development and institutional changes in its mutual harmony allow meeting the needs and expectations of present and future , which is acceptable from a philosophical view. During the years, interests of international financial institutions, especially the World Bank, the idea of sustainable development bring closer to the economists, which stands for an approach that sees sustainability as a general ability for creating a wealth and integrates economical, ecological and social dimension, as three, seemingly, aspects of sustainability (Kordej-De Villa et al.; 2009, 17):

- **economic sustainability** - based on healthy and effective development which includes optimal management resources in a way that they can be used by future generations. It principle value natural capital (deficient resources; water, forests and other natural resources) in which protection must participate all commercial entities. In this sense, special attention is given to immaterial resources and investment in their quality on which is possible to establish competitiveness and long-term development;
- **ecological sustainability** - covers taking responsibility for the negative consequences of actions which includes optimal management of natural resources and waste. Although this is a low-key, accepting the principles of environmental management means taking care about the human health (ebookbrowse; 2010);
- **social responsibility** - in the widest sense, it refers to the whole range of company's activities and all the relationships which establish that. Therefore; what company produce, how it affects on environment, how employs, trains and influences on the competences of their own employees, how invests in the community, how respects human and labor rights, how buys and sells on the market, it determines the total impact of that company on the society. A very important segment of sustainable development refers to employees and their work satisfaction, so as a possibility of lifelong education (podravka; 2005, 46).

3. Learning via the Internet

In today's dynamic business environment market participants seek to improve quality of products and services to final users. Meeting these challenges, many subjects developed a closer concepts with their consumers by using ICT. Expanding new trends in distribution, the new models of information exchange are developed

(econpapers; 2008, 153). Modern way of doing business and life in general, among the most important human's resources, primarily exhaust space and time. Modern education is more meaningful and organizational confronted with these, and the need for new approaches and forms of education is undisputed. Each new need for educational activity, whether created by the user of educational sector, either by the service providers, leads to a series organizational problems which are originally related to the problem of lack of time and space. Therefore, there are various and powerful reasons for education transfer, at least partially, from conventional to more appropriate reality. This doesn't mean that the existing forms of educational communication "face to face" should be completely abandoned, especially those highly effective, but along with them, the preconditions for education based on new educational technologies should be created, which can respond to the educational needs of modern man. Traditional approach to education won't be able to meet the growing needs. Today, it is safe to predict that in the next ten years the application of ICT (Information and Communication Technology) in educational process will fundamentally change the processes of acquiring knowledge. The use of ICT in the process of education is a strategic option which will greatly affect the future of the economy and society in general, and especially on the status of educational institutions. Speaking about ICT in education, it is used acronym ITLET (*Information Technology for Learning, Education and Training*), which is a key element in all forms and models of distance learning (Breslauer; 2011, 27).

A staple of the Internet today is achieving immediate and open access to informations worldwide. Internet is:

- **easily accessible** - it is not technically limited to a narrow circle of specialists from the field of information technology, it is not exclusive in the sense of restricting access to informations, it is financially accessible to a wide range of users;
- **interactive** - it doesn't filter communication through the political or economic mediators, but quite the opposite, it enables direct communication of individuals, individuals and groups, and groups themselves;
- **diverse** - in the context of easy accessibility, opinions, ideas and attitudes can be expressed by individuals and groups of diverse views. It is connected with modern culture, but it is not its substitute, it allows creation of new cultural forms merging the modern culture and information technology;

- **experimental** - open for new ideas, purposes and processes, determined by its cultural, social and political benefit, not just on commercial basis (Foresta et al.; 2003, 2). Today, its educational potentials are highly visible and its application is quite logical in the area of education.

Basic advantages of Internet learning compared to traditional education reflects in the following:

- in the individualization of educational process for users to progress in line with their psychological and perceptual skills, as well as their prior knowledges;
- in combination with other electronic information sources (encyclopedias, magazines, libraries, www) it secures the most current research facilities;
- in permanent or occasional interaction with sources of informations it increases the activity of users, develops critical thinking, the ability to analyze and conclude;
- interaction isn't only with the providers, but with the users of other institutions, in which the level of knowledges and experiences is shared and equalized;
- it provides fluctuation of informations instead of people which significantly reduces costs;
- educational software provides periodic evaluation, so besides evaluating knowledge in interaction with the provider or other users, it performs self-evaluation;
- it is provided an engagement of top experts from certain areas which raise the quality of educational process on the higher level and equalize the knowledge level on national and international level (Ružić; 2012, 899-900).

4. Modern trends in education

In a condition of changing markets, the rapid development and expansion of technology, multiplying competition and product obsolescence overnight, successful companies becoming the one which constantly create a new knowledge, disseminate it through organization and quickly incorporate it into the new technologies and products. Education is no longer obligation and privilege the ones in higher positions and professional jobs, but becomes obligation of all. Those activities determine the company as an organization which creates knowledge and which only business is innovation. These are organizations that have realized that learning and new knowledge is a key of success and the education is crucial for future wealth.

As the organization is larger, it spend more money for education and give its members larger and more diverse opportunities for education and development. In that sense, a new concept appears, the concept of learning enterprise whose employees constantly learn new things and apply lessons in improving the quality. Besides managerial and leadership's skills, education in computer skills is often applied, also the communication and professional skills. Because space and time in business today are significantly reduced, a major role in the operations has a successful implementation of new technologies, especially ICT. Here, the Internet leads, which has many advantages that manifests through saving time, space and overall costs and through the contribution of creating virtual organizations, combining the elements of sustainable developments. This paper has presented the importance of implementation of learning organization for its survival in modern market conditions and provided a systematic review of knowledges and skills that are used today and will be looking for with emphasis on modern technologies that should be increasingly used because they contribute to the effects of economy of scale.

Literature:

Bahtijarević – Šiber, F. (1999.) Management ljudskih potencijala, Golden marketing, ISBN 953-6168-77-4, Zagreb.

Bogdanović, M. (2009). Organizacijska klima u hrvatskom tranzicijskom prostoru: Što i kako razvijati?, *Tranzicija* 11, 143-156, ISSN 1512-5785.

Breslauer, N. (2011.) Obrazovanje uz pomoć informacijsko - komunikacijskih tehnologija, Zbornik radova Međimurskog veleučilišta u Čakovcu, Breslauer, N. (ur), str. 27-32, ISBN 1847-702X, prosinac 2011, Međimursko veleučilište u Čakovcu, Čakovec.

Foresta, D., Mergier, A. & Serexhe, B. (2003). The new space of communication, the interface with culture and artistic activities, Dostupno na: <http://www.circle-network.org/wp-content/uploads/2010/09/Conference-Reader3.pdf> Pristup: (28-02-2013)

<http://ebookbrowse.com/12-planiranje-u-turizmu-i-turisti%C4%8Dka-politika-2010-ppt-d111626587> Pristup: (14-02-2013)

http://econpapers.repec.org/article/osibulimm/v_3a11_3ay_3a2011_3ap_3a151-168.htm Pristup (05-03-2013)

http://www.hgk.hr/wpcontent/blogs.dir/1/files_mf/analiza_edukativnih_potreba_2010_hr.pdf Pristup: (05-03-2013)

<http://www.moj-posao.net/> Pristup: (13-02-2013)

<http://www.podravka.hr/mediji/publikacije/izvjesca-o-odrzivom-razvoju> Pristup: (14-02-2013)

http://www.poslovniforum.hr/management/upravljanje_ljudskim_potencijalima.asp
Pristup: (01-02-2013).

<http://www.svanconsulting.com/index.php/znanje-online/knowledge-online-edukacija/5-trendovi-u-poslovnoj-edukaciji.html?lang=hr-HR> Pristup: (13-02-2013)

Kordej-De Villa, Ž., Stubbs, P. & Sumpor, M. (2009). Participativno upravljanje za održivi ekonomski razvoj, Ekonomski institut, ISBN 978-953-6030-38-5, Zagreb.

Maravić, J. (2003.) Cjeloživotno učenje, Edupoint 17, 34-38, ISSN 1333-5987.

Ružić, D. & Budić, H. (2012). Utjecaj informacijsko komunikacijske tehnologije na poboljšanje nastavnog procesa, Proceedings of 3rd International Conference "Vallis Aurea" Focus on: Regional Development, Katalinić, B. (ed), str. 895-903, ISBN 978-3-901509-78-0, Požega, 05. listopada 2012, Polytechnic of Požega & DAAAM International Vienna.

Sinkovic, G. & Kaluđerčić, A. (2006.) E - učenje - izazov hrvatskom visokom školstvu. Dostupno na: <http://hrcak.srce.hr/3761?lang=en>, Pristup: (15-02-20123).

Tadin, H. (2007.) Cjeloživotno obrazovanje za povećanje konkurentnosti poduzeća u Europskoj Uniji, Ekonomija 14, 143-150, Dostupno na: http://staro.rifin.com/root/tekstovi/casopis_pdf/ek_ec_537.pdf Pristup: (05-02-2013)

Vidulin - Orbanic, S. (2007.) "Društvo koje uči": Povijesno - društveni aspekti obrazovanja, Metodčki obzori 2, 57-71, ISSN 1846-1484.

Žiljak, T. (2002.) Načela građanstva i obrazovanje odraslih, Politička misao 39, 109-127, ISSN 0032-3241.