
University- Business Cooperation Current Situation in Slovakia and Europe

Zuzana Melicheríková¹

Abstract:

One of the purposes of higher education institutions is to educate specialists that will cover the needs of labour market. In order to fulfil this mission the university-business cooperation is necessary as this is the only way how graduates could fit in the requirements of the employers. In the times of knowledge economy and global economic crisis this cooperation should be even more intensive. The university-business cooperation is also important in research as both can benefit from the results. That is why we concentrated on this topic in the article and investigated the current situation in university-business cooperation in Slovakia and Europe. We present the results of our survey on this topic and compare it with the results of the surveys conveyed by other institutions. On the basis of the survey results and opinions of specialists on university-business cooperation we proposed the solutions to form strategic partnership of businesses and universities.

Key Words:

Recent graduates, higher education institution, university-business cooperation, university-business cooperation forms, strategic partnership

¹ *University of Management, Bratislava*

1. Introduction

Youth unemployment is a serious problem that European Union faces at the moment. In June 2012, 5,472 million young people (under 25) were unemployed in the EU-27. Compared with June 2011, youth unemployment increased by 227,000 in the EU-27. In June 2012, the youth unemployment rate was 22.6 % in the EU-27. In June 2011 it was 21.2 %. In Slovakia the youth unemployment is much above the average of European Union. At the end of 2011 it reached 33.8 % (Hall, 2012). During the global economic crisis it is still more challenging to find a job even for the university graduates. According to the survey of British government, the UK university graduates are just as likely to be unemployed as school leavers with only secondary education. In Slovakia, the unemployment of university graduates is approximately 30%². The employers prefer employees with previous work experience which the recent graduates often do not have. Cooperation between companies and universities could help to prevent and solve this problem. The goal of this article is to point at the level of business–university cooperation in Slovakia, find out the reasons of current situation and propose suggestions to improve it.

2. City University / Vysoká Škola Manažmentu (School of Management) in Bratislava Survey

We conveyed the survey among companies in a period of four months (April-July 2011). The questionnaire was distributed by email to more than 3,540 Slovak employers with the response rate of 8%. The employers were asked what factors they judge while hiring new employees and could select education, work experience, language skills, computer skills, international experience, membership in various organizations, volunteering, salary requirements of the applicant and others. We concentrated on work experience as the most important factor for the employers. Lack of work experience is also one of the main reasons why recent graduates do not succeed on the labour market. 49.8 % of employers consider work experience as very important in the process of hiring new employees. Only 4.1 % of them consider work experience as not important or somewhat important. Complete results of the survey are shown in the Table 1.

² Nezamestnanosť absolventov vysokých škôl je takmer tretinová), available at: <http://openiazoch.zoznam.sk/cl/105448/Nezamestnanost-absolventov-vysokych-skol-je-takmer-tretinova>, (accessed: May 28, 2011).

Table 1: Importance of work experience for the employers in the process of hiring employees

Scale	Response Percent	Response Count
Not important	1,20%	3
Somewhat important	2,90%	7
Important	14,80%	36
More important	30,50%	74
Very important	49,80%	121
Don't know	0,80%	2
Total	x	243

Source: Own survey

According to the survey employers consider work experience very much. They prefer employees with work experience more than employees with higher education. Employers were asked to evaluate their opinion on the statement: "I prefer higher educated applicants rather than more experienced applicants". The Table 2 clearly shows that work experience is more important than the level of education. 79 % of them disagreed that they do prefer higher education rather than work experience.

Table 2: Employers' preferences of education rather than work experience

Scale	Response Percent	Response Count
Not	30,00%	74
Rather not	49,00%	121
Rather yes	13,80%	34
Yes	5,70%	14
Don't know	1,60%	4
Total	x	247

Source: Own survey

Besides distribution the questionnaires to employers, we also conveyed the survey among students and teachers. The questionnaire was distributed by email to more than 7,818 teachers employed at the Slovak universities, and more than 9,020 students studying at the Slovak universities with the response rate of 20.23 % in case of teacher respondents and 15.61% in case of student respondents. They were asked

whether the recent university graduates are adequately prepared to succeed on the labour market. The results are show in Table 3.

Table 3: Recent University graduates preparation for the needs of labour market – Opinions on the statement: “University graduates are adequately prepared to succeed on the labour market”

Opinions	Businesses		Teachers		Students	
	Response Percent	Response Count	Response Percent	Response Count	Response Percent	Response Count
Strongly disagree	10,10%	28	3,00%	41	6,70%	86
Disagree	48,40%	134	18,60%	252	27,70%	356
Agree	35,00%	97	57,40%	778	43,10%	555
Strongly agree	1,40%	4	19,30%	261	13,40%	173
Don't know	5,10%	14	1,70%	23	9,10%	117
Total	x	277	x	1 355	x	1 287

Source: Own survey

In the Table 3 we can see a slight discrepancy in the view of companies, teachers and students. While teachers are rather optimistic (76.7 % of them think that students are well prepared for the needs of labour market), companies are more pessimistic as only 41.5 % of them think that students are well prepared to succeed on the labour market. Among the students 56.6 % consider their university preparation as adequate, while 34.4 % think that they are not adequately prepared for the labour market.

3. University-Business Cooperation

In the survey we found out that employers prefer experienced applicants and they think that graduates are not well prepared to succeed on the labour market. University-business cooperation could help to solve these problems so in the following part we will analyse the current situation in university-business cooperation in Europe and in Slovakia.

University-business cooperation is defined as all types of direct and indirect, personal and non-personal interactions between higher education institutions and businesses for reciprocal and mutual benefit. Universities and businesses may cooperate in various areas: research and development, conferences, mobility of

academics, mobility of students, commercialisation of research and development results, curriculum development and delivery, lifelong learning, entrepreneurship and governance.

Collaboration in research and development between higher education institutions and businesses includes joint research and development, contract research, research and development in consulting, cooperation in innovation, joint publications and theses supervision. Academic mobility and mobility of students means temporary or permanent movement of teachers, researchers and students from higher education institutions to businesses and employees and managers from businesses to higher education institutions. Commercialisation of scientific research and development can be done through spin-offs, disclosures of inventions, patenting or licenses. Curriculum development and delivery represents creating a learning environment and human resources relevant to modern society. Lifelong learning means learning at all stages of life – adult education, permanent education and continuing education. Entrepreneurship represents actions involving higher education institutions towards the creations of new ventures or developing an innovative culture within the higher education institutions in cooperation with businesses. Governance means the cooperation on managerial level.

We are convinced that cooperation of the universities and businesses could help the recent graduates in gaining work experience so that they can be more valuable for their future employers and have better chances on the labour market. We investigated what the level of cooperation of the universities and businesses in Slovakia is from the perspective of business companies, university teachers and students. The results are displayed in the following tables.

Table 4: Level of cooperation of the Slovak universities and businesses from the businesses' point of view – Opinions on the statement: “Cooperation of the universities and businesses in Slovakia is sufficient”

Opinions	Response Percent	Response Count
Strongly disagree	25,20%	69
Disagree	44,90%	123
Agree	12,40%	34
Strongly agree	1,80%	5
Don't know	15,70%	43
Total	x	274

Source: Own survey

More than 70% of the businesses think that the cooperation of the Slovak universities and businesses is not sufficient.

The businesses were also asked whether they cooperate with a university and how often. The answers were as follows:

Table 5: Cooperation of the universities and businesses in Slovakia

Answers	Response Percent	Response Count
No	57,90%	157
Hardly ever	10,70%	29
Sometimes	15,10%	41
Often	7,40%	20
Regularly	8,90%	24
Total	x	271

Source: Own survey

As we can see from the table 5 almost 58 % of the companies do not cooperate with any university. This situation may be one of the reasons why the university graduates are not well prepared for the needs of practice; they have lack of work experience and difficulties to find a job. It would be appropriate to connect the university education with practice.

As the results of the survey are not positive, we were interested in the factors that would encourage the business companies to cooperate with the universities. The results are shown in the Table 6.

Table 6: Motivation factors to make the business-university cooperation more intensive

Motivation factor	Response Percent	Response Count
Better initiative of the universities	47,00%	117
Better support of the government	47,40%	118
Better possibilities of company publicity on the university	25,70%	64
Possibility to hire university graduates	23,30%	58
Possibility to apply the results of research	29,70%	74
We do not have an interest to cooperate with the universities	15,70%	39
Total	x	470

Source: Own survey

47.4 % of the companies would be motivated with the government support of their cooperation with the universities. 47 % of them would prefer better initiative of the universities. Quite a significant part of the businesses (15.7 %) does not have any interest to cooperate with the universities. We compared the opinions of employers with the opinions of students and teachers on the level of cooperation of the business companies and universities.

Table 7: Level of cooperation of the university and businesses – teachers’ and students’ view

Level of the cooperation of the university and businesses	Teachers' view		Students' view	
	Response Percent	Response Count	Response Percent	Response Count
Very bad	6,10%	81	7,60%	102
Bad	19,40%	259	16,90%	226
Neither bad nor good	25,50%	340	21,40%	286
Good	31,00%	413	14,40%	192
Very good	9,90%	132	6,20%	83
Don't know	8,00%	107	33,40%	448
Total	x	1 332	x	1 337

Source: Own survey

25.5 % of teachers think that the cooperation of their university with private sector is very bad or bad. The same percentage of the teachers considers it as an average and 40.9 % of them think that the cooperation is good. In comparison with the students’ perspective we can see a slight discrepancy in the evaluation of the cooperation of their university with the practice. While more than 40 % of teachers think that the cooperation is very good or good, only approximately 20 % of students consider it as very good and good. The reason of this difference may be in a different perception or it might be caused by insufficient information that students have about the cooperation of their university with the private companies. The fact that 33.4 % of the students do not know to evaluate the level of the cooperation may indicate that the problem is in the lack of information.

We also asked the companies to express their opinion on the statement: “University-business cooperation in Slovakia is sufficient”. 25.2 % of them strongly disagreed, 44.8 % disagreed, only 12.4 % agreed and 1.8 % strongly agreed.

INEKO (Institute for Economical and Social Reforms) is the organization that supports economical and social reforms by removing the barriers of long-time

positive development of Slovak economy and society (INEKO, 2012). It is non-profit and non-governmental organization.

The survey of INEKO confirms our results. It was conveyed in cooperation with The Business Alliance of Slovakia, American Chamber of Commerce and Slovak-Austrian Chamber of Commerce in a period of four months (June–September, 2011). 87 companies with more than 37.000 employees were involved in the survey, for example T-Systems Slovakia, s.r.o., VÚB, a.s., PSA Peugeot Citroën Slovakia, U.S. Steel Košice, s.r.o. or SAMSUNG Electronics Slovakia, s.r.o. This survey is not totally compatible with our survey since the employers evaluated not only universities but also high schools. In spite of this it provides valuable information on the topic of university-business cooperation.

According to INEKO survey, more than 58% of the companies consider the quality of recent graduates as insufficient. More than one third of the survey participants confirmed that they have tried to influence the education based on their needs and over 80 % of them succeeded. The survey showed that the main form of cooperation of the businesses with the students is advising final thesis. Companies hardly ever affect the education directly at schools. Only some of them provide lectures or create new studying programmes (Dančíková, 2011).

4. The Science-to-Business Marketing Research Centre Survey

Similar survey was conducted within Europe by the Science-to-Business Marketing Research Centre in Münster, Germany. The Research Centre "Science Marketing" at the University of Applied Sciences Münster developed the first strategic approach worldwide for a successful commercialization of research competencies, capacities and results. Science-to-Business Marketing aims at a successful marketing of research competencies, capacities and results. The objective of the Research Centre "Science Marketing" is to develop, test and provide new models, instruments and proceedings for research commercialization that enable universities to market their research more effectively (Science-to-Marketing Research Centre Germany, 2012).

The survey was conveyed in a period of fifteen and half months in 2010 and 2011 within existing and candidate members of European Union and those partly committed to the European Union economy and regulations. Higher education institutions and academics were target respondents of the survey. The survey was sent to over 11,000 higher education institution managers in February 2010 and was concluded in April 2011. The responses were obtained from 4,123 academics, 1,150 higher education institution managers and 1,007 university professionals working with businesses.

Respondents were asked to evaluate the level of university-business cooperation in eight areas (collaboration in research and development /CRD, mobility of students/SM, commercialization of research and development results/CRDR, lifelong learning/LLL, curriculum development and delivery/CDD, entrepreneurship/E, governance/G and mobility of academics/AM) on the scale from 1 to 10, while 1.0 meant no cooperation, 1.1 – 4.0 low level of cooperation, 4.1 – 7.0 medium level of cooperation and 7.1 – 10.0 high level of cooperation.

The results are as follows: Across all countries most academics are not engaged at all in university-business cooperation or only at a low extent, whereas at the institutional level, most higher education institutions engage in some degree of the cooperation with businesses. Approximately, 40% of academics are not engaged in university-business cooperation at all, 20% of academics undertake only a low extent of the cooperation with businesses, whilst only 40% of academics undertake a medium or high extent. In respect to higher education institutions, it has been found that most of the higher education institutions surveyed (92%) engage in some degree of university-business cooperation at an institutional level, with approximately 65% of higher education institutions having at least a medium degree of university-business cooperation (Science-to-Marketing Research Centre Germany, 2012). Tables 8 and 9 illustrate the level of university-business cooperation in the European countries from the academics' and institutional point of view.

Table 8: Extend of Academic University-Business Cooperation per Country

Country	CRD	AM	SM	CRDR	CDD	LLL	E	G	Total
Austria	4,8	2,3	3,1	4,3	3,0	3,1	2,6	2,3	3,3
Belgium	4,7	2,4	4,1	4,0	3,9	3,6	3,1	2,6	3,6
Bulgaria	4,7	3,8	4,5	4,1	4,5	5,5	3,8	4,2	4,6
Croatia	4,2	3,8	3,6	3,9	5,1	5,6	3,8	3,6	4,2
Cyprus	4,6	2,8	4,0	3,6	5,2	4,8	3,3	2,6	3,9
Estonia	4,6	3,6	4,6	2,8	5,4	4,8	2,7	2,8	3,9
Finland	6,8	3,9	4,3	5,4	4,2	4,4	3,8	3,0	4,4
France	5,0	2,3	5,5	3,8	4,8	4,1	3,3	3,1	4,1
Germany	6,2	2,8	4,8	4,9	3,0	3,4	3,1	2,8	4,0
Hungary	4,7	3,3	4,6	3,8	4,8	4,5	3,3	3,0	3,9
Ireland	5,0	2,0	4,6	3,7	4,9	4,2	3,7	2,9	3,9
Italy	4,4	2,5	3,8	3,3	3,1	3,7	2,5	2,3	3,3
Latvia	5,3	4,3	4,6	4,4	5,9	4,7	2,8	3,4	4,6
Lithuania	4,5	4,6	5,6	4,4	5,5	5,8	4,3	4,1	4,9
Netherlands	6,7	3,0	4,7	5,2	4,2	4,2	4,0	3,2	4,4
Poland	3,0	2,3	2,8	2,6	2,9	3,0	2,3	2,3	2,8
Portugal	4,4	2,4	4,2	3,2	3,7	4,2	3,5	2,4	3,5
Romania	4,8	3,6	4,4	3,7	4,3	5,2	3,5	3,2	4,2
Slovakia	4,7	3,2	3,4	4,0	4,5	4,4	3,3	2,8	4,1
Spain	4,4	2,2	3,6	3,4	3,4	4,1	3,2	2,6	3,5
Turkey	4,8	4,1	5,0	4,3	4,2	4,6	4,5	4,1	4,5

UK	4,8	3,0	3,6	4,0	3,9	3,6	3,4	2,6	3,7
Average	4,9	3,1	4,2	3,9	4,3	4,3	3,4	3,0	4,0

Source: Science-to-Marketing Research Centre Germany (2012)

The countries with the best results are double underlined and the countries with the worst results are single underlined. According to the perception of academics the best level of university-business cooperation achieved Lithuania and the worst Poland. The best value 4.9 of Lithuania still represents only medium level of university-business cooperation. Slovakia achieved evaluation 4.1 which also represents the medium level of cooperation but it is very close to the low level. The results of INEKO survey confirm the results of our survey. Slovakia reached the sixth best evaluation from observed countries and is very closed to the European average. The average of whole Europe is 4.0, which means that the level of cooperation of the universities and businesses in Europe is low. The best results are achieved in the area of research and development collaboration and the worst in the area of governance which means that universities and companies do not cooperate sufficiently at the management level. Slovakia also reports the best results in the area of research and development and the worst in governance. Table 9 expresses the extent of higher education institution university-business cooperation per country in above mentioned areas.

Table 9: Extent of Higher Education Institution University-Business Cooperation per Country

Country	CRD	AM	SM	CRDR	CDD	LLL	E	G	Total
Austria	6,7	3,8	5,1	5,5	5,0	5,4	4,5	4,4	5,0
Belgium	6,3	4,5	5,9	5,6	5,5	5,4	5,6	4,5	5,4
Bulgaria	5,4	5,4	6,0	4,8	5,7	6,4	5,6	5,5	5,8
Czech Rep.	6,1	5,0	5,8	5,0	6,3	6,3	4,0	3,9	5,3
Denmark	6,3	4,8	6,7	5,4	6,8	6,3	6,0	4,7	5,8
Estonia	5,1	4,1	5,2	4,7	6,9	6,4	4,9	4,0	5,1
Finland	7,4	5,3	7,0	5,4	5,9	6,6	6,0	5,0	6,2
France	6,8	4,0	6,8	5,2	6,3	6,2	6,0	5,9	5,9
Germany	7,2	4,6	6,7	5,9	4,9	5,3	5,6	4,7	5,6
Hungary	6,4	4,6	5,4	4,7	6,1	6,2	4,8	5,1	5,6
Ireland	7,9	5,1	7,2	7,7	7,3	7,1	7,6	6,8	6,9
Italy	5,8	4,8	6,0	5,0	5,9	5,5	5,1	4,7	5,3
Latvia	6,4	5,9	7,2	4,4	6,7	6,8	5,6	6,0	6,4
Lithuania	4,9	5,9	7,2	4,4	6,7	6,8	5,5	5,6	6,0
Netherlands	6,4	4,6	6,1	5,4	5,2	5,4	5,9	4,8	5,4
Norway	6,5	4,0	5,3	4,7	4,5	4,7	4,6	3,9	4,7
Poland	4,9	4,4	5,5	4,0	5,1	5,2	5,0	4,7	4,9
Portugal	6,0	4,8	6,8	4,8	6,0	6,4	6,1	5,1	5,8
Romania	6,8	6,3	7,2	5,4	6,9	7,0	6,5	6,4	6,6
Slovakia	5,1	4,8	5,4	4,4	4,9	5,5	3,9	4,3	4,6
Spain	6,9	4,9	6,6	6,1	5,7	6,4	6,3	5,5	6,1

Sweden	7,0	4,4	5,4	6,2	5,5	5,8	6,1	5,0	5,7
Turkey	5,6	5,0	5,4	4,5	4,6	5,3	5,7	5,4	5,2
UK	7,6	5,4	6,5	7,4	6,9	6,5	7,2	6,3	6,6
Average	6,3	4,9	6,2	5,3	5,9	6,0	5,6	5,1	5,7

Source: Science-to-Marketing Research Centre Germany (2012)

On the institutional level Ireland achieved the best university-business cooperation score. Slovakia reached the worst score – 4.6. The best value 6.9 of Ireland still represents only medium level of university-business cooperation. The average of whole Europe is 5.7 which mean that the level of cooperation of universities and businesses in Europe is medium. The results on the institutional level are more positive than the results of academics. When it comes to Slovakia the results are alarming as we achieved the worst evaluation within 24 European countries. The best results are again reached in the area of research and development collaboration and the worst in the area of mobility of academics. Slovakia reports the best result in the area of lifelong learning and the worst in entrepreneurship. This fact confirms the results of INEKO survey which stated that obsolete studying programs and unwillingness to change them by Slovak academics are one of the barriers of university-business cooperation in Slovakia.

The fact that higher education institutions evaluate university-business cooperation higher than academics may be caused by the academics not being informed enough about the activities of universities when it comes to the cooperation with businesses.

In Europe and also in Slovakia it is possible to find positive examples of university-business cooperation that should be mentioned. Cooperation of T-Systems Slovakia and Department of Electronics and Informatics of Slovak Technical University in Košice sets a positive example. This department provides subjects that were proposed by T-Systems Slovakia. Employees of the company teach at the faculty (Dančíková, 2011).

In November 2011, economic magazine *Trend* rewarded Všeobecná úverová banka, a.s., Volkswagen Slovakia and Faculty of Mechanical Engineering of Slovak Technical University for the excellent cooperation. Všeobecná úverová banka asked economic universities to elaborate a project on which they can cooperate with the prestigious researcher so that students can know research methods that are used abroad. Volkswagen Slovakia and Faculty of Mechanical Engineering aim to educate a new generation of qualified specialists. Volkswagen Slovakia provides equipment for the laboratories of the department, its employees teach at the faculty and students have seminars directly in the factory (*Trend*, 2011).

T-Systems Slovakia, Všeobecná úverová banka and Volkswagen Slovakia belong to large sized companies. According to the survey of INEKO, not only big companies

cooperate with the schools. Approximately half of the employers were small and middle sized companies.

Employers in INEKO survey evaluated positively University of Economics in Bratislava, Slovak Technical University in Bratislava, Technical University in Košice and Comenius University in Bratislava (Dančíková, 2011).

In Europe we can find more positive examples of university-business cooperation. From many of them we will mention those that go strategic – IBM-Die Eidgenössische Technische Hochschule (ETH) Zürich, Siemens-Technischen Universität (TU) Berlin, and Nokia-Aalto University.

ETH Zürich and IBM were cooperating for 10 years and the result is the creation of Binnig and Rohrer Nanotechnology Center where scientists will research novel nanoscale structures and devices to advance energy and information technologies.

Together with the TU Munich, Siemens began two years ago working to develop a new architecture for electric cars that is simpler and cheaper than that of today's electric cars.

Nokia has a long-running collaboration with Aalto University in wireless technologies and multimedia technology research. The company has two teams working in the university labs, and Aalto researchers also work at Nokia's Research Center. Finland's national technology funding programme, administered by an organisation called Tekes, helped enable the partnership. It allows companies to apply for research funds that are channeled to universities and small and middle sized enterprises (Science Business Innovation Board, 2012).

5. Recommendations on Effective University-Business Cooperation

Both higher education institutions and businesses benefit from working together; cooperation encourages the transfer and sharing of knowledge, helps to create long-term partnerships and opportunities whilst boosting students' future employment prospects. The cooperation only on financial basis is not enough. It is necessary to develop strategic partnership.

To build the strategic university-business partnership policy The Science Business Innovation Board (The Science Business Innovation Board is a Belgian not-for-profit scientific association that performs original policy research, engages with policymakers and the press, and works generally to improve the climate for innovation in Europe. Its members include Science|Business, ESADE Business School, INSEAD, Microsoft, BP, SKF, Foley & Lardner LLP, Aalto University and Imperial College London) suggests (Science Business Innovation Board, 2012):.

- Keep the ship steady – for long-term strategic partnership stable and predictable environment of funding and regulation is crucial.
- Give universities autonomy to operate effectively and form partnerships.
- Reward activists and collaborative universities and encourage being more that way –e.g. the rewards given by economic magazine Trend as mentioned above.
- Help universities strive for the excellence as companies always want to cooperate with the best. It is necessary to support and promote the best universities.
- Employers in Slovakia suggest (Dančíková, 2011).
- It is necessary to inform the schools about the possibilities of cooperation and present the best experience of the cooperation projects.

It is necessary to publish the information about unemployment rates and salaries of recent graduates. Schools should be motivated to cooperate with the companies on a financial basis – they should be provided less financial support if their graduates show high level of unemployment. Currently universities are funded based on the number of students not based on their results.

It is necessary to convey the surveys of satisfaction of the employers with the universities and their graduates. The Science-to-Business Marketing Research Centre survey and our own survey revealed discrepancies in the view of various groups of respondents. There are differences in the perception of the level of university-business cooperation between the European academics and higher education institutions. According to our survey the perception of the quality of university-business cooperation varies among companies, students and teachers. We recommend to inform regularly the students and academics about the possibilities of cooperation with the companies by organizing workshops, conferences, seminars and meetings of the main representants of the universities, companies and students. To understand the needs of each party, effective communication is necessary.

The cooperation of schools and businesses is not standard. More than two thirds of the companies have never tried to influence the education in spite of the fact they are not satisfied with the quality of recent graduates. 20 % of the businesses which showed the interest to cooperate were unsuccessful. As the main reason they indicate the unwillingness of schools to innovate obsolete studying programmes and lack of motivation (Dančíková, 2011).

Motivation is the crucial factor for improving education in general and also for developing university-business cooperation. Companies have to be motivated to cooperate with the universities. They have to be convinced that they will benefit from the cooperation. To think this way the long-term orientation of the companies is necessary.

It is important to motivate the academics by their participation in the national and international projects that require applicability of the research results in the practice. Students should consider this factor while choosing the university and a particular teacher.

6. Conclusions

Most of the companies in Slovakia complain about the quality of recent graduates. This problem can be partly solved by intensive university-business cooperation. However, the level of university-business cooperation in Slovakia is low. Although we can find some positive examples, it is not sufficient to compete within Europe. The average situation in Europe is more positive than in Slovakia but there still is a potential for improving. The financial support of higher education institutions is no longer enough to build knowledge economy. University-business cooperation in Europe is just at the beginning. It should become more intensive. It is necessary to create long-term strategic partnerships of the universities and businesses. In Slovakia it is crucial to increase the motivation of academics and higher education institutions to cooperate with businesses by rewarding and presenting the best cooperative projects and by funding the universities on the basis of achievements instead of the number of students. University-business partnership brings benefits to both of them. Students are provided with the education that meets the needs of labour market and businesses benefit from hiring well prepared specialists. However, the benefits are not only in the area of human resources. Knowledge transfer is also important especially when it comes to the innovations on the side of business and research and development effectiveness when it comes to the universities.

References

- Allen, M. (2002), *The Corporate University Handbook: Designing, Managing, and Growing of Successful Programme*, AMACOM, 2002, pp278.
- Bahaudin, D.M., Preziosi, R. C. (2006), *Adult Education in Academia: Recruiting and Retaining Extraordinary Facilitators of Learning*, Information Age Publishing, Charlotte, pp 354.
- Brown, P., Hesketh, A., Williams, S. (2004), *The Mismanagement of Talent: Employability and Jobs in the Knowledge Econom*, Oxford University Press, Oxford, pp 288.
- Dančíková, Z. (2011), *Ako ulahčiť spoluprácu firiem a škôl*, <http://www.ineko.sk/clanky/ako-ulahcit-spolupracu-firiem-a-skol>, (accessed August 30, 2012).
- Hall, J. (2012, February 22), "University graduates just as likely to be unemployed as school leavers with one BCSE", *The Telegraph*, available at: <http://www.telegraph.co.uk/education/educationnews/9098339/University-graduates-just-as-likely-to-be-unemployed-as-school-leavers-with-one-GCSE.html> (accessed August 17, 2012).

- Hill, A.M. (2004), "Secondary School, University, and Business/Industry Cooperation Yields Benefits to Technological Education Students", *Journal of Technology Studies*, Vol. 30, pp 19 – 27.
- INEKO, available at: <http://skoly.ineko.sk/en/>, (accessed August 30, 2012).
- Liebowitz, J., Frank, M. (2010), *Knowledge Management and E-learning*, Auerbach Publications, pp 372.
- Rozanski, A. (2008), "The Educational Orientation of Participants in Postgraduate Managerial Study Programmes in Poland", *Human Resource Development International*, Vol 11, pp 91 – 99.
- Science-to-Marketing Research Centre Germany (2011), *The State of European University-Business Cooperatio*, available at: https://fh-muenster.de/science-marketing/downloads/EU_UB_Cooperation_FinalProjectReport.pdf 31.08.2011 (accessed August 3).
- Making industry-university partnership work – Lessons from successful collaborations (2012), *Science Business Innovation Board*, available at: <http://sciencebusiness.net/Assets/94fe6d15-5432-4cf9-a656-633248e63541.pdf>(accessed August 29, 2012).
- TREND udelil ceny za spoluprácu škôl a firiem (2011, April 5). *TREND* online, available at: <http://firmy.etrend.sk/firmy-nefinancny-sektor/trend-udelil-ceny-za-aktivnu-spolupracu-skol-a-firiem.html> (accessed August 28, 2012).
- Trujillo Torres, J.M., Hinojo Lucena, F.J., Aznar Díaz, I. (2011), "Propuestas de trabajo innovadoras y colaborativas e-learning 2.0 como demanda de la sociedad de conocimiento, *Estudios Sobre Educacion*, Vol. 20, Navarra, pp. 141 – 159.
- Wankel, Ch., De Fillippi, R. (2008), *University and Corporate Innovations in Lifelong Learning*, Information Age Publishing, Charlotte, pp 288.