

INVESTMENT IN HUMAN CAPITAL – THE COMPARISON OF CZECH REPUBLIC AND GERMANY

KAMILA SLUKOVÁ – MIROSLAVA NAVRÁTILOVÁ

Abstract

Human capital (human potential) is the most valuable commodity that each of us owns. It is necessary to treat this capital very carefully, because the human resources management involves not only some specifics, but especially risks. The author wants in this article to point out to major issues of human resource management especially to exploitation of human capital in practice and the maintaining of human capital, respectively increasing of human capital. Part of this text is also dedicated to *principal-agent problem* and its possible solution. This is closely related to the question of the optimal organizational structure and remuneration in the company.

There is also made an analysis of the development of investment into education at the university school system in the text. These data are consequently compared with the sources of the Federal Republic of Germany and with development of student's number at German universities.

Key words: human potential, management of human resources, principal-agent problem, universities, unemployment, investment

Classification JEL: M12 – Personnel Management

1 Introduction

This paper discusses the human capital in general and focuses on the investments that are being spent on it. Attention is given not least to the question of aspects of human resources management with regards to increasing value of human capital in the context of asymmetric information. First of all it is necessary to introduce the definition of basic concepts that must be defined more precisely for the overall understanding of the following text.

In the literature there is most often quoted the definition of the human capital from Bontis et al. who believe that: „Human capital means the human factor in an organization; it is a combination of intelligence, skills and experiences, what gives the organization its particular character. The human components of the organization are such ones, what are capable of learning, changing, innovation and creative efforts, what – if properly motivated – secures the long term survival of the organization,“ (*Bartoňková, 2010, p. 66*).

Bordieu notes, that the human capital is „any capacity enabled to produce profit and to reproduce itself in the same or extended form,“ (*Mazouch, Fischer, 2011, p. 1*). The basis of human capital is formed by knowledge of the employees and their skills, their invention and innovation ability (*Mallya, 2007*). The human capital is not of material character and it is counted among renewable production sources, what is very important from the economics point of view (*Vojtovič, 2011*).

2 Necessity of investment in human capital

In the context with human capital it is necessary to remind terms like intellectual, social and organization capital. The human capital is an aggregate of abilities, knowledge and skills of the people, by which the intellectual capital is created. Consequently it comes to their deepening by mutual interactivity and influencing (social capital) and so the organization capital is created, in other words institutionalized knowledge, owned by the company (*Koubík, 2012*).

A special attention must be given to the specification of the term intellectual capital what is the full property of the company and basis of what are knowledge. As terminological equivalent

it is possible to use terms for example like intellectual property, intellectual or knowledge assets. Edvinsson does understand them like summarization of:

1. Human capital – property of knowledge, applied experiences, skills, and professional abilities;
2. Organization capital – technology of the internal controlling of the organization;
3. Client's capital – relationship to clients, goodwill, relationship to suppliers (*Kislingerová, Nový, 2005*).

The characteristic attribute of the human capital management is use of measuring instruments like a certain guideline for controlling of people, what is considered as fortune and assets of the organization; it underlines that competitive advantage is reached by strategic investments into this fortune by recruiting and stabilization of workers, guiding of talents, education programs and development (*Armstrong, 2007, p. 27*).

About necessity of investment into the human capital is not necessary to discuss in more details; today every individual and organization should be very well aware of the necessity of its increasing for sustaining the quality and competitiveness in the global world. The influence of this phenomenon to the economic growth of the given state is undeniable. Direct influence of the human capital to the economic growth is naturally not easily measurable. Nevertheless, the statistics of OECD show that the average prolongation of studying by one year brings a long-term growth of GDP in amount of 4 to 6 per cent.

James Heckman, the Nobel Prize laureate for economics for year 2000 has proved that the return of the investment into education is highest in pre-school age. This is mainly justified by the fact that the sooner the individual starts the education, the more time he consequently has to receive the respective yields. Education of pre-school children also facilitates further studying in significant measures, what increases their possible potential value in future; in other words it makes assumption for later gains. Another example can be a study from the USA, proving that special care about children from disadvantaged social groups has lowered their rate of criminality up to 70% (*Education at a Glance 2011: OECD Indicators, 2011*).

However it is not enough for a successful life to have knowledge only, for example of foreign language, what makes always the ground of the education at the most Czech schools, but as well skills (computer literacy) and especially proper attempt (efficient exploitation of time and understanding other people and foreign cultures).

Even in 1999 it was declared so called Bologna's declaration, signed by 29 European countries. This declaration has initiated a reform processes in the field of unification of studying structures of individual states. By implementation of the internationally comparable levels of university education should be improved the mobility of students and graduates inside and outside Europe. All this should be a contribution to higher attractiveness of European universities towards the English-Saxon ones (*Hochschulstandort Deutschland 2009: Ergebnisse aus der Hochschulstatistik, 2009*).

The basic assumption for unification of the European university education is implementation of two basic levels – pre-gradual and post-gradual. Access to the second level of study will be possible after finishing the first studying level during usually for three years. The second cycle should aim to achievement of a magister or doctor title, maybe even of both, as it is usual in majority of European countries (*Bologna declaration, 2012*). One of the problems of the Czech school system, what is possible to documents also by the newest date from PISA-program, is the students' ability to apply achieved knowledge in practice. Whereas the Czech student in age fifteen to sixteen years are moderately over average in mathematics, in testing of literary knowledge they slip under the average of OECD. When solving scientific problems, they improved slightly; nowadays they are in total at 15th position and over the OECD average,

despite to that they are still significantly staying back. Among the best evaluated countries there are namely Finland, Canada, but for examples as well Estonia and Japan.

3 Human sources in context of sustainable development

The term „sustainable development“ was from tradition used in ecological issues, only in recent times this term is getting also a social dimension, where the equal chance for participation of every individual is a necessary presumption for harmonic development of the society. Hence, the social sustainability means the equilibration of the social power with sustainable development. This actuality can be documented for example by an opinion, declared by the World economic forum, quoting that economic progress is not sustainable without social development in long term period, whereas social development without economic development is not achievable (*The World Economic Forum, 2012*).

For first class education in the field of sustainable development is the main goal to ensure appropriate quantum of information and practical skills to the individual in that way that he is able to create the future actively and responsibly and itself. The components of education for sustainable development, creating requirements for professional decision making and other activities are as follows:

- Junction of knowledge and new prospective opened to the world;
- Acting with respect to the future getting of interdisciplinary knowledge;
- Skills of planning and communication together with others;
- Participation on the decision making processes
- Ability to motivate others to activity;
- Ability to reflex the others and keep own point of view at the same time;
- Ability to plan and act individually;
- Ability to show empathy and understanding for disadvantaged persons;
- Ability to activate themselves to the activity (*Brundtland-Bericht, 1987, 2012*).

4 Investment into the human capital from the individual point of view – Czech Republic

Viewing the value of the human capital, its importance for development of the society, its relationship to the sustainable development and thus necessity of the investment into human capital has found its significant reflection in the status of Czech education system and university education first of all. On one hand it is possible to understand the interest of citizens for further education as positive, on the other hand too high number of students enrolling to the study (many times without entrance examination) leads to deterioration of the studying quality and as well the quality of the graduates. In last period there has come considerable interest of citizens in further education, the greatest interest was recorded for bachelor degrees courses, but as well the long-term master specializations show an increase in the number of students. Student's interest in higher education was reflected very quickly in the growths of schools providing education in these fields. The following chart shows the number increase of universities in the Czech Republic in recent years.

Czech Republic makes effort to move closer to West European standards, which gives as a target each year – that 40% of the productive population had a college degree. These tendencies are from the development point of view standard for all other advanced countries of Western Europe, increase number of university students is so natural and does not show in the long term horizon any major deviations. As an example it is possible to mention the situation in the Federal Republic of Germany.

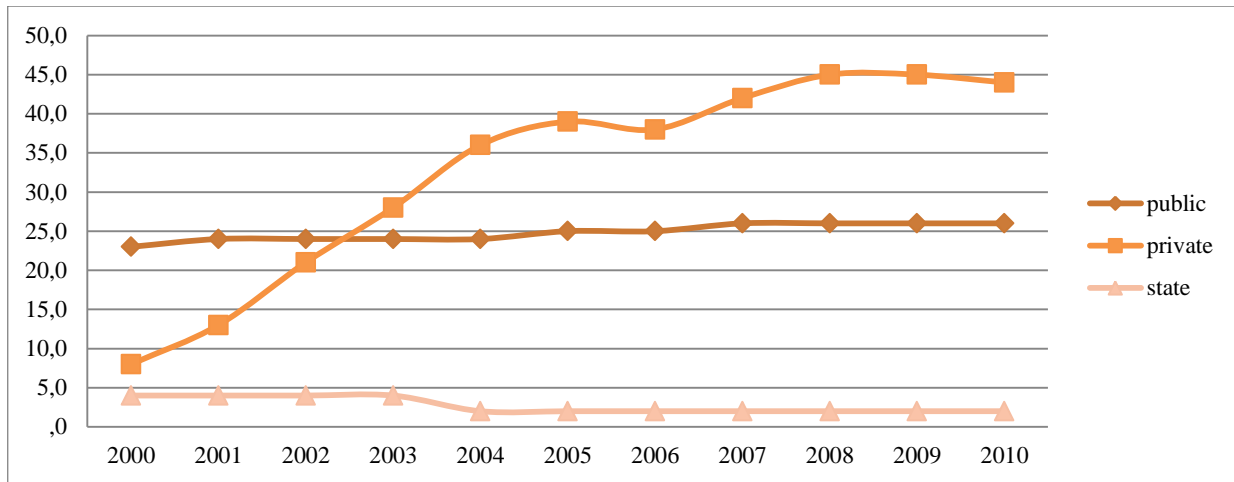


Figure 1: Number of universities according to the founder

Source: own layout according to Czech Statistics Office (2012)

College degree has always been associated with higher social and society status; however this is no longer valid nowadays. The most of young people are not able to admit it and refuse to accept a work what is below their level; this even shortly after graduation and without any practice. In the context of rising unemployment of graduates, there is necessary to take in consideration the structure of higher education itself. Universities produce today such specializations that are not of wide use, or they produce such a high number of graduates who subsequently cannot find a job (as is the case for economists). The achieved university degree can't be taken as a guarantee of protection – it is facing the economic cycle. The following chart shows the development of number of students at universities in the Czech Republic in the previous decade.

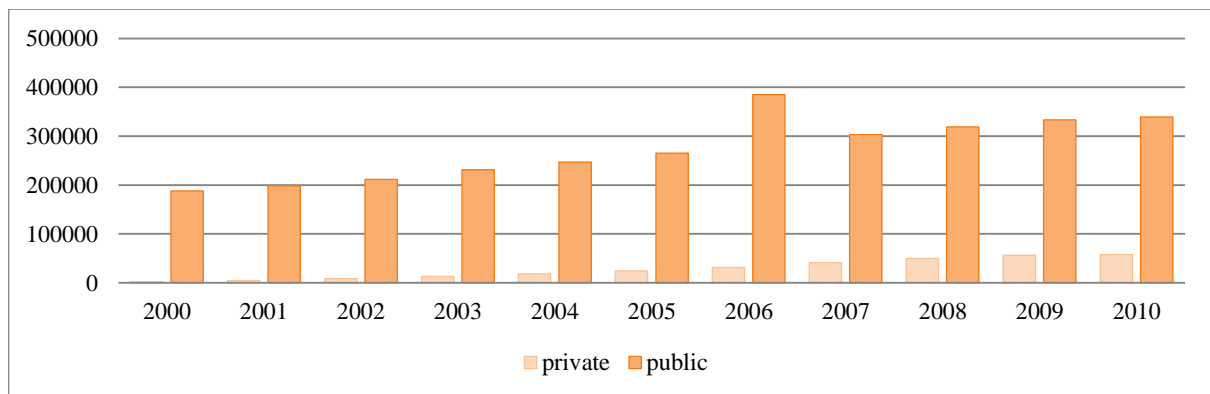


Figure 2: Number of university students in sorting of public and private schools

Source: own layout according to Czech Statistics Office (2012)

In the year 2000 made the number of students at public universities 188 000 students only and at the private schools 2 000 students. In the year 2010 reached the number of students at the public university the sum of 340 000 and at the private ones 58 000. This is growth more than 80% at the public schools and 2800% at the private ones during 10 years. The private universities came to popularity especially because of high rate of enrolled students compared to the total number of applicants. Unfortunately the trend aims to the situation that even at public universities grows the rate of accepted students towards the total number of applicants.

The contemplation about these numbers itself necessarily leads to the idea that it inevitably comes to a devaluation of education and hence of the quality of people, too. Increasing the availability of studying is certainly price worthy, but the value of a university degree is declining with a growing number of graduates dramatically. The general literacy of the population moves higher what means that the graduates will be less protected against unemployment. On the risks of devaluation of the quality of tertiary education testifies the fact that in 2001 the rate of success of candidates at public universities was in average 56%. In 2011, the number of accepted students for studying the bachelor fields is already 72% of candidates. In case of private universities in 2001, the proportion of students accepted to the study was 93% of the total number of applicants. In the following years it has grown up to 98% (Half-year's statistics of the graduates and underage in registers of Labor office, 2012). It is already the usual standard that the employers lay higher requirements even for applicants to the job – especially just in the level of achieved education. Working positions, up to now occupied by people with finished high school, are now held by persons with a bachelor degree as standard. This fact as well supports the current trend of necessity to increase human capital of individuals. With every such investment is of course connected a question of advantageousness, return, respectively profitability of the investment.

It is possible to compare the return of investment of the university study in bachelor's and master's studying programs. When evaluating the return of investment to the human capital increase it is possible to come out from the following prerequisites:

- Return on investment in terms of a payback period (measured in years) – the time after graduation, when the invested funds will return.
- Investment in human capital is seen as a loss of salary for a high school educated individual for the course of study (in the case of bachelor's fields 3 years, in case of master's disciplines 5 years).
- It is considered a different average salary for graduates and workers with experience (applies to both high school and university-educated individuals). For the first year is so calculated with a lower average wage, for the second year and the following with higher average wages (see Table 1).
- Yield of higher education = difference between the salary after graduating from university and high school educated individual wage.
- Taking into account the net present value of future income.

For comparison it is possible to come out from the average wage (for secondary educated individuals, graduate of the bachelor's field and master's discipline). As the initial investment is understood loss of salary during the time of studies. Return on investment is then monitored as a cumulative value of the difference between the average of a high school graduate's wage and salary of a bachelor's graduates, respectively of a graduate of master's degree. At this comparison is of course taken into account the net recent value of the investment (respectively the value of higher future income). For calculation was taken into consideration also the fact of increased wages of graduates after reaching a certain level of experience. The following Table shows the average gross wages.

During the realization of the bachelor's degree study is the cost spent to the opportunity of a student in the first year of CZK 16 884 / month (what would be gained as a high school graduate) and in furthers years CZK 21 064 / month. The cost laid down to the opportunity for the entire studying period was in average CZK 708 000. This amount will begin to return to the bachelor's graduate in the first year after graduation as the difference between the average wage of a graduate of high school and graduate of bachelor's discipline without experience. In the following years, it is being returned as the difference between average salary of a graduate bachelor's program with practice and experience compared to a high school. Average salary of

bachelor's educated individuals is about CZK 25 000, meanwhile the average salary of a high school makes CZK 21 000. Looking to the relatively small difference between the initial investments, these are compensated on average after 14 years.

Table 1: Gross wages of graduates of individual education levels (in CZK) 2012

Education	Graduates with experience up to 1 year		Graduates with experience up to 3 years	
	Age	Average	Age	Average
High-School	19 – 21	16 884	22 – 24	21 064
Bachelor's	21 – 23	20 073	24 – 26	24 958
Masters'	24 – 26	26 025	27 – 29	34 646

Source: own study

The higher difference in average gross wage is at Master's specializations graduates. Such a graduate without practice is now receiving an average salary of CZK 26 000, after achieving some practice up to CZK 34 500. Looking to the higher difference the initial investments (measured by lost salary of a high school graduate for 5 years of study to Master's degree) make an average CZK 1.2 million. Due to the higher absolute difference in wages the graduate of a master's program can equilibrate the loss of salary for the period of study after about 8 to 9 years. This once again directs to the trend that threatens the future aiming of Czech university school system, what is already showing rapid growth of interest in education for master's degree (even though the bachelor's degree overweighs so far).

Table 2: Number of unemployed graduates of bachelor's studies according the individual disciplines

Number of unemployed graduates of bachelor's studies	2006	2007	2008	2009	2010
Mathematical disciplines	12	3	9	6	3
Information disciplines	22	15	15	24	20
Mining and mining geology, metallurgical engineering and foundry industry	26	16	16	25	26
Machinery and machinery production	25	28	19	32	39
Electrical engineering, telecommunication and Computer technology	26	30	34	51	60
Textiles production and clothing	19	17	24	30	13
Agriculture and forestry	34	26	26	45	38
Philosophy, theology	45	41	42	52	36
Economics	292	246	288	462	775
Law, legal and public administration activities	43	44	44	42	68
Historical disciplines	14	13	19	13	33
Pedagogy, teaching and social care	48	52	59	82	157

Source: own layout according to Records and analysis of employment in the Czech Republic (2012) and Half-year's statistics of the graduates and underage in registers of Labor office (2012)

The advantage of investing in higher education – especially to the one at the master's level – is a relatively “quick” return on investment. Nevertheless, the question remains, if this is sustainable. In connection with rapid increase of the number of graduates of bachelor's and master's courses, today a lot of graduates doesn't have certainty of finding employment,

especially in the appropriate salary level. This fact is documented also by a fact that it comes slowly to blurring the difference between the average wage of a high school-educated individuals and those with a bachelor's degree. From the long term point of view, with the growing number of candidates this may occur even to master's degree graduates. The Table 2 confirms the growing unemployment among graduates of bachelor's courses.

As the Table 2 shows, strikingly manifested is the increase of unemployed graduates with bachelor's qualifications especially in economic and educational fields. In the field of teaching, pedagogy and social work, it came between 2006 – 2010 to almost 200% rise in unemployment; at the economists it was 165%.

5 Investment into the human capital from the individual's point of view – Federal Republic of Germany

The Czech Republic has become once again a part of Europe after a fall of iron curtain more than twenty years ago and since 2004 it is also among the Member States of the European Union. In this section, the attention is paid to the situation in the field of university education in the Federal Republic of Germany which has historically and geographically very close interactions with our state. Analysis of investment in human capital in this country is very interesting and can be very inspiring for any changes in our country as well.

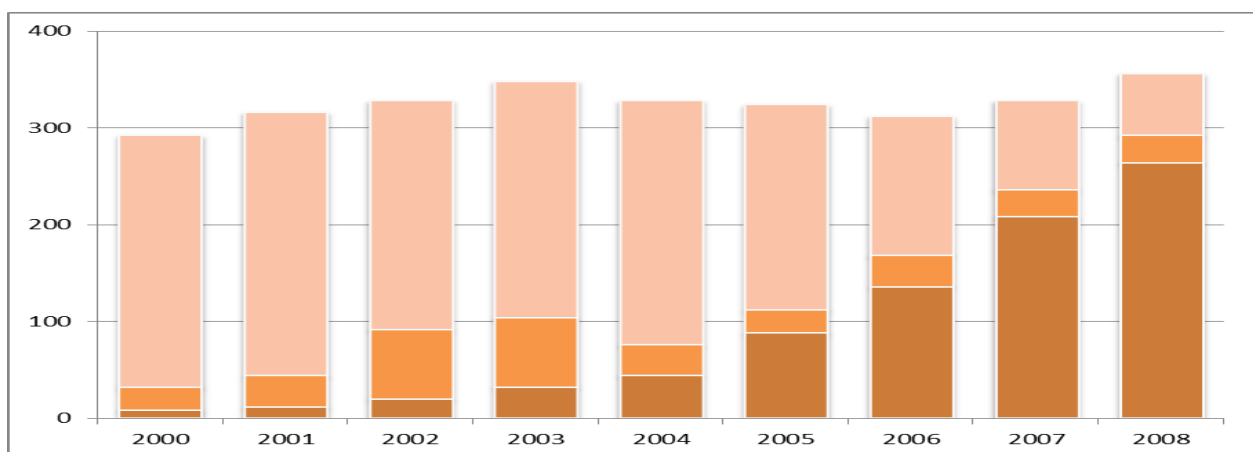


Figure 3: Students who started study in bachelor's degree in German (2000 – 2008, in thousands)

Explication: First color (the darkest) = bachelor's study; second color = teaching; third color = classical universities, colleges of applied sciences (Fachhochschulen)¹ and universities of arts.

Source: Hochschulstandort Deutschland 2009: Ergebnisse aus der Hochschulstatistik (2009)

When looking at the above mentioned chart it is definitely clear that the Federal Republic of Germany recorded even a slight decrease of university students in certain years. On ground of comparing of the individual value it is possible to state that since the school year 2007/2008 the number of students grows permanently, anyhow there are not any jumping or surprising values.

In the winter semester 2010/11 the average age of students in Germany was 25.3 years, of the most popular focus was Business Administration with a total number of approximately 685 000 accepted to study; at the second place were engineering disciplines and branches of law, both with less than one hundred thousand students. Fewer candidates showed interest in

¹ *Fachhochschulen* are the universities of applied sciences, laying stress on education of specialized skills; place of their origin is Germany, later on this model has been taken over also by education systems of other countries, mostly German speaking ones.

university studies of physics (*Studentenschwemme an deutschen Universitäten und Fachhochschulen, 2012*).

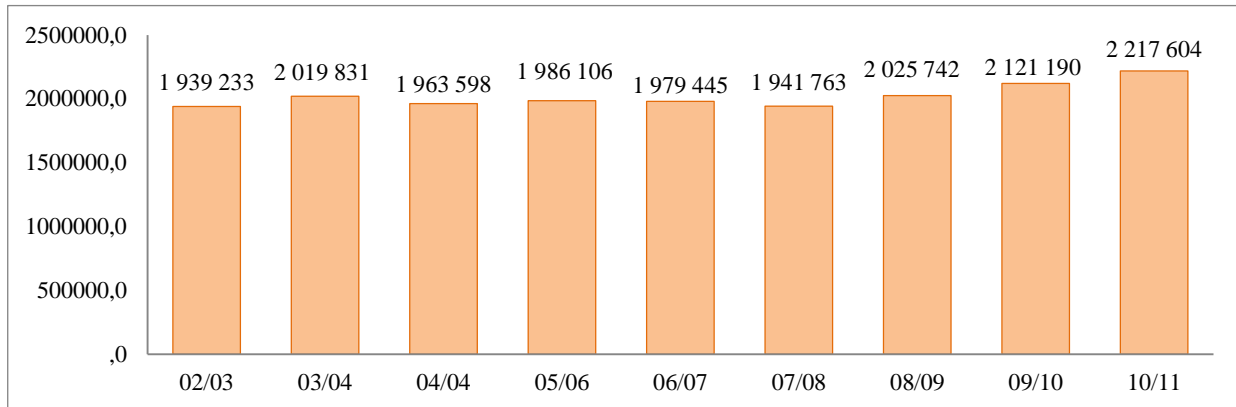


Figure 4: Number of students at the German universities since the winter semester 2002/3 till 2010/11 – number of accepted to study

Source: own lay-out according to Anzahl der Studenten an deutschen Hochschulen vom Wintersemester 2002/2003 bis 2010/2011 (2012)

The process of changes in orientation of German universities towards bachelor's studies in the first degree was very fast during the previous decade. This fact can be demonstrated by the values as follows: in the school year 2008 succeeded 74% of those who started their studies in the first step to graduation, what was by 11% more than in 2007. In the same year 8% of them terminated the study of the teaching fields and 18% of all students at this level of study was the share of traditional universities, universities of applied sciences and arts colleges (*Hochschulstandort Deutschland 2009: Ergebnisse aus der Hochschulstatistik, 2009*).

6 Investment to the human capital from the company's point of view

The market value of a successful company can be in some cases much higher than its accounting value. Edvinsson and Malone believe that the value of any enterprise is created by the sum of its financial and intellectual capital (*Mallya, 2007*).

With respect to effort to achieving the targets and meeting the priorities of the company, each company has to:

- Plan the human resources.
- Have defined procedures for recruiting and selection of people.
- Manage the remuneration of people.
- Manage their development (*Charvát, 2006*).

Other point of view is offered by Pentose, who defines the enterprise as an aggregate of productive resources, what is further segmented to:

- Physical resources, what are formed by buildings and estates owned by the company, technical equipment and as well by mineral materials and goods not yet sold.
- Human resources what are classified on ground of their exploitation (qualified and unqualified labor, difference between technical, administrative and managing activities etc.), (*Kompetenz – Entwicklung, 2005: Kompetente Menschen – Voraussetzung für Innovationen, 2005*).

As mentioned above before, the necessity of investments into education are aware not only the individuals but also the employers who currently offer also more opportunities for their employees to expand their qualifications, education, skills and abilities.

In the company education until now prevail so called general competences, like foreign language lessons for the employees, work with computers (primarily work with Microsoft Office – Word, Excel, Power Point and Outlook) and communication skills (sales skills are of the prevailing importance).

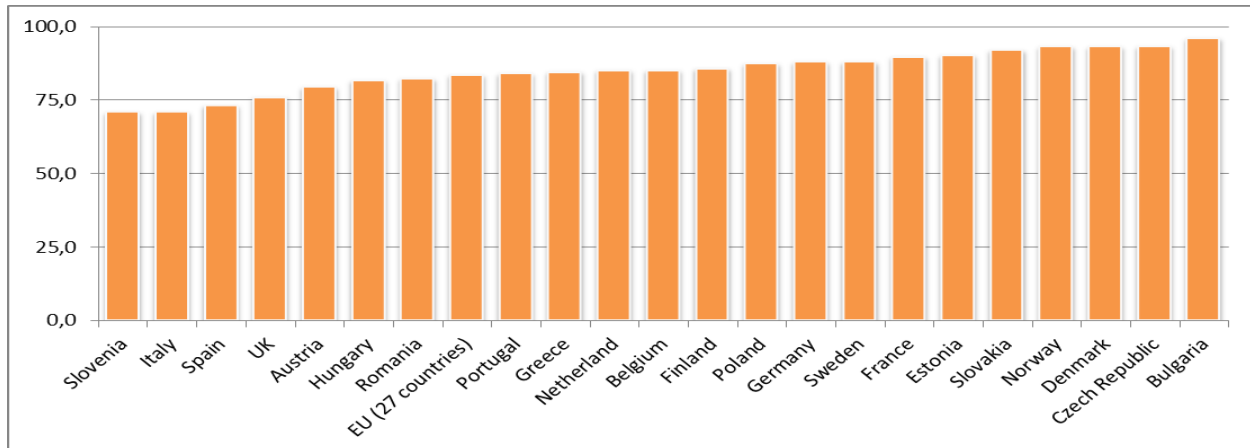


Figure 5: Participation on company education of population in age between 25 and 64 years in percentage of the total participation at formal and informal education in 2010

Source: Eurostat Home (2012)

From the perspective of a company submitting to their employees possibility of further education in a form of courses or other corporate support (such as for example partial payment of tuition fees), the university education also carries certain risks inside. At first, again, the return of investment is in question. It is relatively easy to quantify the cost of submitted training to employees. These are the resources used to implement business education (lector's salaries, purchase of educational equipment and other connected expenses) or expenses associated with university study of employees in the form of payment (even partial) of tuition fees, respectively the lost working time of the employee due to reduction of the engagement looking to school attendance.

Increasing of the value of human capital of the employees carries together especially the risk of the employees' leaving the company. From this reason, especially if a higher investment to human capital is in question, the company should take precautions against such leaving. In practice a simple variety of an agreement is used, when the employee signs to stay with the company for certain period after finishing the study (what was paid by the employer). For setting up the necessary competencies of employees – in other words the subsequent selection of educational activities for employees is necessary to take into consideration:

- Strategic plan of the company – the expected long-term plans, expected results (including basic stages of future development of the company, methodology of evaluation of the achieved results).
- The form (way) how to achieve strategic plans (and from that following knowledge required at different levels of management; detailed specification of type of skills and knowledge at different levels of management from the rank of common workers to top management).

- Working out the evaluation system of the education activities – including the way to monitor the using of achieved knowledge and skills for the company's practice.
- Preparation of a development plan for each worker – detailed schedule of educational activities, including determining the method of evaluation of achieved results and training schedule.

For the purposes of setting the level of risk associated with investment into the human capital development of the employees it is necessary to determine the type of knowledge that an employer may submit to his employees. In this respect, it is necessary to differ between the increase of the value of human capital and human capital deepening. Deepening of the human capital means increasing the quality of existing knowledge – in other words deepening the level of knowledge to be used in the given company or branch. Among the most common representatives of such education we include specialized training courses aimed at training in the field of new technology methods of production, etc. Such skills are often not transferable to other sectors; respectively they are transferable only in a limited extent. The deepening of human capital and related investment are for the companies paying this education to their employees a safer form of investment.

Increasing the value of human capital is then understood as “widening horizons”, respectively acquiring new knowledge, new skills and abilities. This knowledge often are not so specifically useful, it is often a type of general knowledge like to improve language level, computer literacy, communication and presentation skills, etc. In particular, if an organization decides to invest into this form of education, it must take into account the possible asymmetry of information in that sense, that the employee thinking about further education, will use this option and after increasing his skills and gaining new knowledge he will leave the company consequently. As the most effective tool to protect against this information asymmetry appears to concluding a new contract, binding the employee to remain in the company until any time after completing a training program. The question is of course the time of this liability. The length should minimally correspond to the time that higher education of the employee can contribute to higher turnover of the company, at the same time this increased turnover compensates the funds invested in the educational program.

The setting up any specific educational program for a specific company is not a question that can be answered within a short time. The space of human resources management in society is influenced by a number of asymmetric information, very often based on subjective estimations. When determining the specific education training program for the employees should be respected the following chronological steps:

- Defining the mission, vision and strategic plan of the company. Setting up the long-term goals (type of expansion of production, expanding into new markets, etc.) determines the general requirements for future human resources in the enterprise.
- Specification of the human resources structure with respect to the hierarchy and the strategic plan of the company
- Setting up the human resources development plan with respect to the planned breakdown of employees according to the company hierarchy.

For avoiding or limiting the possibility of the information asymmetry, caused by incorrect defining of the general aims of the company, and as well the aims of the human resources development, it is appropriate to work out the plan of their development as deep as possible. So this is possible to specify minimal requirements, namely with help of following steps:

- Defining of the group development programs (for the individual branches the definition of the general trends of education activities).

- Defining of the individual development programs (in cooperation with the group development program to specify the individual education program for every employee).
- Career interview – testing of knowledge, ignorance, but especially the fields of interests of the employees (because of the necessary motivation for further education) for further training. Career interviews are an effective instrument and source for setting the individual education program of an employee; even though they are not able to avoid the information asymmetry – mainly because of dependency of information on the subjective feelings of the employee and the chief leading these interviews.
- Evaluation of the employees – the way of regularly evaluation of employees with respect to the possibilities of recording the achieved skills for the company's practice.
- Mapping of the potential and talent's identification – this will be among others a part of the career interview, when the human resource specialist identifies an employee with high potential for further growth into a „special“ education program. Such an employee is then motivated by gaining higher and more quality education program for staying with the company, because there is a strong presumption of career growth.

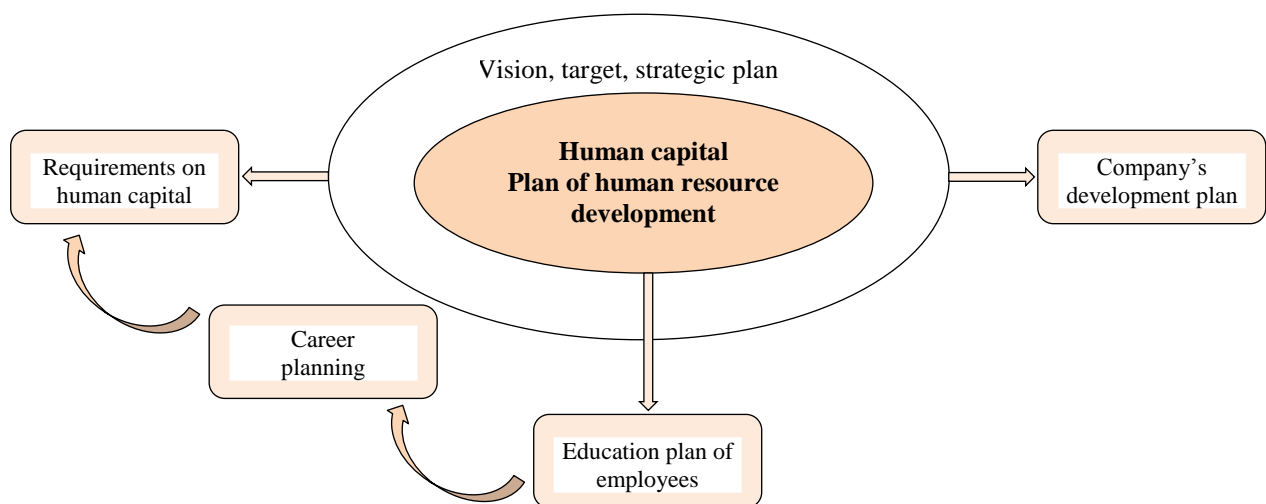


Figure 6: Plan of human resources development

Source: own study

7 The issue of representation, principal-agent problem

In connection with management of human resources and information asymmetries in recent years is very often inflected the concept of principal agent problem. It's a question that has to be solved by every company owner, considering a transfer of competencies in company's management to an agent – manager. There is coming to conflicts of interest of the owner and manager, which could lead in final consequences even to moral hazard.² From the manager's position, if there is not set an effective model of representation, control and surveillance system, it leads to opportunistic behavior harming to the interests of the less informed party, what means

² Moral hazard is a term associated with the asymmetry of information, and occurs in a situation where the activities of one economic subject (better informed), which seeks to maximize his benefit, lowers the benefit of the others, less-informed participants in market transactions. Moral hazard is discussed very precisely in the area of representation, the manager, who is considered because of his power and competences for the better informed may behave in such a way that seeks to maximize their income (wages, benefits, etc.) and at the same time he doesn't respect the company's target from the owners' point of view. Thus, it comes to a situation that due to opportunistic behavior of a manager the income of the owner is reduced.

the owners of the company. When trying to minimize the risk associated with opportunistic behavior of a manager directly causing moral hazard damaging the company's owner, it is necessary to focus the efforts in two directions:

1. Setting up an appropriate system of management, responsibility, control and hierarchy at the level of company's management. Activity of the executive manager is hence controlled from several points of view. The system of corporate governance separating so called non-executive functions – especially representatives of the Board, whose task is to oversee the effective economic activity of the company and the activities of executive bodies. Executive positions – which include primarily the management responsible for directing the company – what means the management, where can be assumed occurrence of opportunistic behavior. Diagram of such a model is shown below (Figure 7).

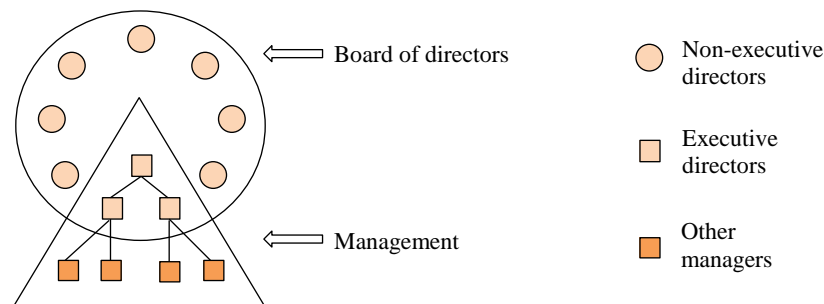


Figure 7: Monistic model of corporate administration and management

Source: Tricker, 2009

System of corporate administration often used in Czech condition is shown by a following diagram. In question is the division of joint stock company organs.

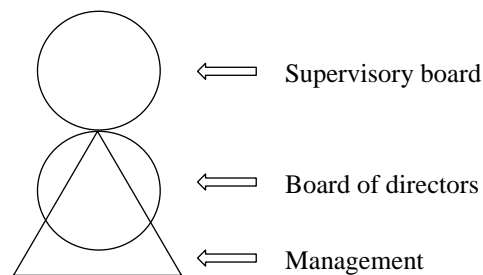


Figure 8: Dualistic model of a joint stock company administration

Source: Tricker, 2009

2. Setting up an appropriate system of remuneration. In companies where there is the ownership separated from management, it is necessary to set up a system of remuneration and motivation for the top management that they will be motivated to lead the company in trends towards benefits for owner of the company.

Among the most common errors in the system of manager's remuneration may be included first of all definition of the fixed salary regardless of the results of the company. The same effect may be due to the fact that the fixed part of the wage is set too high in comparison with the variable component of remuneration. This system is not very motivating for the manager. As preferable alternative solutions are offered various forms of executive's remuneration bound to

indicators reflecting the economic activities or current state of company's economy. Even though the following remuneration varieties are more appropriate, they may continue to present some risks of opportunistic behavior of managers. They can be as follows:

- Linking the wage of the manager to the market value of company's shares. On one hand the manager is motivated to increase the value of the company, but in the extreme case, his efforts and opportunistic behavior can lead to an artificially inflated value of shares and attempts to its overstatement.
- Linking the wage of the manager to other measureable economic indicators of economic efficiency of the company, as they are for example volume of turnover, height of receipts etc. The company's owner must take into consideration that too strong motivation oriented to the manager's own benefit, could lead in this case for example to implementation of costs savings to detriment of quality with aim to selling more and thus to maximize his own income.
- Payment of the wages partly through benefits, respectively dividends; it means to enable the manager to purchase employee shares at favorable terms. There remains the biggest question: in which proportions to set the executive's remuneration in a form of dividends. Should be the form of dividends prevailing, he could be motivated to trying to overestimate the shares; vice versa if he was not sufficiently motivated by dividends, he might not be motivated for effective management of entrusted property.

Besides the setting the proper system of remuneration, however the principal or owner is utilizing a range of other instrument how to maintain the discipline of his agent, respectively how to prevent that his behavior could harm to the company's owner. At first this is the direct control of behavior, in other words contractually treated compliance to instructions and related control of the conformity and sanctions in case of violations. Finally, in question it is also a necessity of setting relatively large information system of quantity and quality, respectively the manager's information duty. He should be giving detailed information on his activities and by this to minimize the difference between the amount of information available to the manager and the owner of the company.

8 Conclusion

Despite the statistics of employment and unemployment, the proportion of people in production age with tertiary education is in the Czech Republic lower than the average of the European Union. However, should the trend still continue, and the number of graduates will grow steadily (and in high rate, as concurrently), we can expect that the unemployment of university graduates also continue to grow. Greater threat than that one of university graduated unemployment however means the risk of devaluation of the quality of education, caused by the rapid growth of interest in further education and related massive acceptance of students to universities.

The solution for the Czech Republic could be of two kinds. Restructuring of higher education in order to enhance the quality of graduates again and at the same time the ability of their adaptation to the labor market; or the university graduates (bachelor's programs in particular) will have to accept the jobs earlier determined for high school coursers. As already noted the proportion of the unemployed population with tertiary education does increase in long term trends. Among the graduates registered at labor offices are economists, school teachers, workers in administration and specialists in accounting and invoicing. According to the study field, there are then mostly registered at the labor offices graduates in economics and management, economic policy and administration, philology and the teaching for elementary and secondary schools.

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Addresses of authors:

Ing. Kamila SLUKOVÁ
Department of Economy Theories
Faculty of Economics and Management
Czech Agriculture University in Prague
Str. Kamýcká 129
165 21 Prague 6 – Suchdol
Faculty of Civil engineering
Czech Technical University in Prague
Thákurova 7
166 29 Prague 6
Czech Republic
e-mail: slukova@pef.czu.cz

Ing. Miroslava NAVRÁTILOVÁ
Department of Business and Finance
Faculty of Economics and Management
Czech Agriculture University in Prague
Str. Kamýcká 129
165 21 Prague 6 – Suchdol
Czech Republic
e-mail: navratilovam@pef.czu.cz