

# Faculty of Business and Economics, University of Pécs graduates on the labor market

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*The topic of the study is the human resource management regarding the different areas of job finding questions of the newly entrants to the market, precisely the graduates, particularly those of the University of Pécs, Faculty of Business and Economics (UP FBE). The Graduate Follow-Up System can be mentioned among the labor-market fit related researches, which is an obligatory task for the higher education institutes.*

*In the analysis I use the research data of the last two years conducted at the University of Pécs. I identify peculiarities, to which we can obtain such cluster groups that allow the creation of an effective support system. The focused energy and resource investment is more effective if it is based on specific training and education packages offered within the Alumni framework. It can increase the results of an even more successful Alma Mater service; furthermore it can improve the self-identification of the institution.*

*From the several motivation-theories, I evaluate the results of the labor-related scores with the findings of Herzberg's two-factor model. I hypothesized that in general the motivator and hygiene factors can be shown as well, and within the motivator-guided graduates, we can observe an advantage comparing to the hygiene-guided ones. The sample is representative which allows to deduce some findings about the main characteristics of the graduates of the Faculty of Business and Economics. Due to the Bologna Process a new higher education system is raising and formulating which pushes the students to face new challenges, and to create different types of expectations about the goals of their studies.*

*The study on the one hand is a guide for future students who can have a first-hand experience from the graduates working on the labor market, on the other hand the researches can observe the sample of 'Pécsiközgáz' graduates.*

*Keywords: Graduate Follow-Up System, labor market fit, higher education, talent management*

## 1. Introduction

The University of Pécs joined the nationwide Graduate Follow-Up System (GFS) research programme (Garai 2010, Kuráth et al 2011a, 2011b) in 2010 to fulfill its obligation formulated in the Higher Education Act: "(6) The higher education institution shall, on the basis of voluntary data provision, perform career monitoring tasks, whereby it shall follow up the labor market position of ex-students having been awarded a certificate or diploma by the institution." (Ministry of Education and culture of the Republic of Hungary 2008, 34. § (6)). This includes indirectly the improvement of student services, which can be placed in the list of the supporting activities of the main purpose of a higher education (HE) institution: the education.

The UP in the framework of graduate tracking tasks of the graduated and present students conducts a dual approach survey. On the one hand it monitors the labor market status of the graduates, collects information about the completed courses, the future plans, the social conditions, and the income situation. This is part of the after graduation feedback of the institutional service improvement. On the other hand, by reaching the students participating in the current education process with these questionnaires, it can assure the quality of the

services, the continuous perfection of the relevance-satisfaction indicators, which is essential for the maintaining of the Hungarian HE institutions' competitiveness. It can be observed as a multi-level competition, an objective measure of success is the labor market placement – and no doubt the placement in the graduate-related profession – ratio of the students. Furthermore the rankings of an institution, faculty and formation based on the quality of the students on the input side, absolute and relative metrics determine the success within the borders of Hungary. On the international level only small special areas are demanded, the competition is mostly nationwide, not international (*Barakonyi* 2010). Every ranking system build on several variables trying to ensure the even possible homogeneity and through this the objective comparison of the HE institutions (*Felvi.hu* 2011, *CEMI* 2011). Because on these are ranked the HE institutions it is obvious that not all of them are satisfied with the methodology due to their unique situation (not all of the variables are taken in account) and so it is naturally a critical approach of the HE leaders. It is therefore important for the researchers to explore more and more tools to use on the available data as widely accepted methods, however, they should meet the professional needs and, at the same time same time the governmental information source expectations, namely the creation of the Higher Education Information System (HEI).

The Graduate Follow-Up System is currently managed by the Educatio Kht., providing professional and infrastructural support for HE institutions. In the starting phase of GFS designing the primary criteria was that not to create any type of ranking methodology so the institutions could have an open-minded attitude toward this initiative. It is not used for a direct ranking, but as the HEI concept states in the Higher Education Act, 53. §, (6): “(6) The Government shall set the quota for newly admitted students annually, ... with labour market forecasts, the data of the career monitoring system, and the assessment of the number of unemployed professionals...” So, indirectly, a ranking is realized from the financial side. Despite the potential threats, I think that a decision based on very complex and structured questionnaires can bring to a more realistic and acceptable result.

In my study I use the GFS data to examine the Frederick Herzberg two-factor model findings at the University of Pécs, Faculty of Business and Economics (UP FBE, Pécsiközzgáz). With the two factors generated by this model I analyze the characteristics and the labor market fit of the Pécsiközzgáz graduates, focusing on their formation program and social situation.

## **2. Methodology**

The researches carried out in 2010 and 2011 (*Kuráth* et al 2011a, 2011b) at the UP within the framework of Graduate Follow-Up System consist of the pre-degree students of 2007 and 2009 then of 2008 and 2010. From the UP FBE 1714 graduates formed the database who had an e-mail contact. The access rate is above 90%, so the basic population inquiry is almost complete. In the sample there are 384 graduates, which is a good, 22.4% access rate. This is well above the initial expectations despite the fact that a personal survey was not carried out; only the online platform was used. Based on arguments of GFS professionals at several GFS-related conference it is a well-known doubt regarding the quality of the data, that what is the main factor examining the question about the majority of the respondents: there are over weighted those fully satisfied, unsatisfied, or totally neutral. This question is to be discussed in a further study, in this paper I consider fully representative the sample of the research, because all the issues of the oral survey were conducted in the autumn of 2010 (within the framework of GFS every three years is required to carry out an oral survey to ensure the validation of the online surveys) and the relevant questions of the professional practice

oriented researches of the UP FBE (Farkasné et al 2011a, 2011b) fully support the results of the online questionnaire. Besides the basic examination of the sample representativeness it is also important to emphasize that the data was weighted according to the theoretical distribution of the full dataset considered the variables of sex, course type and faculties.

Frederick Herzberg published first in 1959 (Herzberg 1959) the results of a two-factor model based on deep interviews with 203 accountants and engineers from Pittsburgh. Apart from this limiting fact it can be well-used in the case of the GFS. Herzberg determined two variables group from this dataset: hygiene and motivator factors. He found that the former does not ensure the satisfaction but the lack of dissatisfaction, the latter can increase and result job satisfaction. His research shows that the lack of the satisfaction factors do not generate dissatisfaction, just simply non-satisfaction regarding the context of the job, and vice versa, the factors eliminating the dissatisfaction of the job do not provide satisfaction, but the non-dissatisfaction of the job. So it is important to pay attention to both groups, the most important variables within the individual factors are:

- Hygiene factors: company policy, supervision, relationship with boss, work conditions, salary, relationship with peers, security.
- Motivator factors: achievement, recognition, work itself, responsibility, advancement, growth (Herzberg 1987).

It should be noted that I examined the data not only within the entire university performed factor analysis, but the only FBE graduates factor analysis, so I searched for significant differences of the above mentioned variables of the FBE graduates compared not to the own average, but to the full four-year dataset. If there was a relevant difference, I indicated the use of the UP valid factors; otherwise the findings of the Herzberg two-factors model are valid for the sample consisting of 286 people of FBE (since from Pécsiközgáz I received this number of fully completed answers regarding the related 6 questions). I divided the sample into two groups based on the factors formed from these questions: motivator- and hygiene-guided graduates. This division – because of the small size of the sample, made with simplification – is based on the simple comparison of the different factors' scores: if the motivator factor scored greater than the hygiene factor, it was labeled motivator-guided, otherwise hygiene-guided. In this case – taking into account the methodology of the factor analysis – the two factors' mathematical mean is 0, so the positive or negative difference from the average (i.e., negative or positive range) counted from the scores of the graduates of the sample can be ignored, the relative comparison of each other is enough to categorize the individual cases into two groups. A further research – by increasing the sample size – probably will be a more detailed classification, resulting a deeper analysis (e.g. with the methodology of multidimensional scaling of the independent factors or by creating four groups based on the weighting of the six factors' scores).

In the crosstab analysis, significant difference was determined by taking the three criteria of the significance expectation into account: chi-square score less than 0.05; the minimum expected count is equal to or greater than 1 and the ratio of the cells with expected count is maximum 20% (Sajtos–Mitev 2007). A further difficulty of the research is that in the surveys of 2010 and 2011 several questions were changed by the Educatio Kht., so in several cases the analysis is valid only for two grades. In these cases the sample size is indicated.

### 3. The results of the analysis

In the job-related evaluations of DPR researches, a block consisting of six questions assessed the satisfaction of graduates. Table 1 shows the six basic factors and the weights of factors originating from the basic ones. Hygiene and motivator factors can be separated well, and the explanatory power of the model (R<sup>2</sup>) is 73.6%, n=288.

Factor analysis of full-time students strengthens this division, too, with the similar power (R<sup>2</sup>=76.3%, n=189). Hereafter, I will treat statements concerning full-time students separately from others only if any difference can be discovered between the results. The two subdivisions categorized students with a common coverage similarly, there were differences only in 21% of the cases. This, as a result of the methodology of the analysis, equalized the distribution of motivator- and hygiene-guided graduates in the sample.

Table 1. Herzberg two-factors model at the UP FBE

FACTORS	THE JOB CHARACTERISTICS	FACTOR WEIGHTS
Motivators	The professional content of the job	0.844
	The professional development, career	0.833
	Professional prestige	0.842
Hygiene factors	Income, bonuses	0.626
	Personal circumstances	0.804
	Physical environment	0.879

Source: authors' research

Nearly two-thirds of the graduates graduated in the traditional education system, 27.4% in the BA/BSc system and only 11.3% studied in the MA/MSc system. The rate of students taking part in full-time education is 66.2%, while the proportion of state-financed students is 64.8%. 74.1% of them are younger than 30, and the ratio of men in the sample is 37.0%. However, in neither case can we detect significant difference concerning Herzberg's factors.

We can see no difference in educational achievements of students concerning the applied subdivisions, the average is 3.7 (n=173) if using the traditional scale of marks. However, these students think that they had a little bit better results in comparison with their classmates (n=175). The knowledge of foreign languages is similar, too – members of the sample speak 2.2 foreign languages on average (n=174), mainly the English and German languages. Approximately 15.5% (n=174) of them studied abroad. In connection with study-related work experience, there can be no difference found between the two factors – 34.5% (n=172) had worked before starting their studies and 72.8% (n=173) worked during their studies. Foreign work experience is not significant (10.3%, n=175). Among those who was working when they graduated, a difference can be showed: 57.4% of motivator-guided students were working while only 39.5% of hygiene-guided students were doing so (n=176). It can be considered positive that the nature of work almost entirely corresponded to the students' own field (in 87.8% of the cases), thereby enforcing professional development. Reasonable conclusions cannot be drawn from the question relating to job search after graduating, but it is interesting that motivator-guided graduates tried to find job 10% more often. The questionnaire is unable to find the reasons, so it can only be presumed that they needed a bigger list of jobs to find the most appropriate work. This is also supported by the

fact that they attended job interviews to a similar extent and concerning the time interval, the difference is quite little in favor of the motivator-guided ones who looked for job for 3.8 months on average. The others motivated by hygiene factors looked for job for 4.6 months on average. It must be mentioned according to the results of the factor analysis that – concerning full-time students of the whole database – the motivator-guided graduates of FBE could all find jobs in their own fields.

There exists a significant difference between full-time jobs after graduation. Motivator-guided graduates had 1.6 jobs on average, and the hygiene-guided had 1.3. In a more detailed examination, we can see that 60% of the motivator-guided graduates had 1 job, 12.7% of them had 3 or more – against the percentages 72.3 and 5.2 of the hygiene-guided ones. So, those driven by motivator factors at work changed their working places more often. It is worth examining this statement in the light of wages, to conclude, how payments develop with this attitude. When speaking about unemployment, it can be seen that only 22.4% of motivator-guided graduates experienced this, while the value is 27.8% in case of the hygiene-guided ones (n=175). We have to emphasize that these values are not so high, mainly if considering the fact that – thanks to the position of the question in the questionnaire – lots of graduates calculated the job search period here. It is supported by the length of the period which is less than 6 months in 82% of the cases.

Concerning current labor market status, there is no difference between the two groups, which is very positive (only 3.5% of them are unemployed). The other answers show that the proportion of employment status is 88.5%. When investigating the sectoral division of jobs, it turns out that hygiene-guided people are market oriented in a bigger ratio, and motivator factors direct people rather to the state sector. As Table 2 shows, the result of the factor analysis is not significant only when concerning the Faculty of Economics but, however the tendency mentioned above can be discovered. Difference can be shown statistically when seeing the filtered values of the factor analysis – carried out on university students and full-time university students – to Pécsiközzgáz. It is exciting that 55.9% of motivator-guided persons work for large companies (more than 250 employees), while 57.9% of hygiene-guided work for SME-s (n=175). It is likely that large companies involve large state-owned enterprises as well as budgetary organs in the study. Thereby, it increases the significance of state sector in case of motivator-guided people.

*Table 2. Job sector of graduates by 3 factor analysis approaches*

Factor analysis base	Herzberg factors	Private sector	Public sector	Total
Faculty of Business and Economics n=278 p=0.158	Motivator-guided	60.7%	39.3%	100%
	Hygiene-guided	69.0%	31.0%	100%
	Total	65.8%	34.2%	100%
University of Pécs n=278 p=0.006	Motivator-guided	56.5%	43.5%	100%
	Hygiene-guided	72.4%	27.6%	100%
	Total	65.8%	34.2%	100%
University of Pécs, full-time course n=183 p=0.024	Motivator-guided	59.5%	40.5%	100%
	Hygiene-guided	75.2%	24.8%	100%
	Total	68.9%	31.1%	100%

*Source: authors' research*

There is no difference between the two factors even if concerning the career-related question. 21.1% of them are leaders, which is a little bit bigger in case of motivator-guided persons (23.5%) and, among these the proportion of non-graduate employment is smaller (7.8%) than among graduates led by hygiene factors (9.0%). The rest is the value which relates to the proportion of graduates doing graduate jobs. The difference is not significant concerning the number of months spent in the current position, but people led by motivator factors have an average of 23.3 months, compared with the average of 19.5 months of the hygiene-guided ones. Moreover, the formers have been working for the same employer for a longer period (27.9 months vs. 24.5 months). The difference between the average values is due to the outstanding values but we must take it into consideration that 50% of the graduates have been working in their positions for 8 months or less and they have been working for their employers for 11 months or less.

Values coming from the answers given to the question of applying professional knowledge in practice and the connection between used knowledge and the profession support the rightness of the subdivision of motivator-guided graduates. They rated the connection 3.4 (5-degree Likert-scale, in which 5 is equal to 'fully apply the knowledge in practice'), while the others – led by hygiene factors – gave just 3.1 on average. In 92.5% of the cases can we see connection if investigating the graduates led by motivator factors. When hygiene factors lead the persons, the proportion is 84.6% (n=175). Tendentiousness during the choice of work in case of motivator-guided graduates is supported by the fact that in 60.6% of the cases MA/MSc diploma is needed to fulfill the position, and in 27.3% College/BA/BSc-level knowledge is needed – only 12.1% said that they did not need any paper from higher education. In 20.6% of the cases diploma is unnecessary concerning former students led by hygiene factors. Only 31.4% of them needed MA/MSc-level degree (n=168). The difference is very big, mainly when taking into consideration that in the crosstab analysis according to the form of education, the ratio of motivator- and hygiene-guided persons were the same. To prove the statistical connection, I investigated the results filtered to 2011, too – since the question relating to the needs in connection with education form was asked in the questionnaire of 2011. In this case, the proportion of BA/BSc qualifications statistically significantly grows at the expense of the traditional university education, but there was no significant difference between the two groups led by Herzberg's two different groups of factors.

The income gap is significant according to the 2011 survey; the average net income of motivator-guided graduates was 171.8 thousand HUF and only 146.4 thousands in case of graduates led by hygiene factors (n=168). This gap also exists when we examine the incomes from other aspects – but the difference is not so significant. The probable cause why we cannot conclude a significant difference concerning the total could be that the two surveys have different methodology. However, the average income is 191.1 thousand HUF, compared with the persons led by hygiene factors, having 20 thousand HUF less on average. Table 3 shows the detailed subdivision and the average incomes if considering the sector of the job and the teaching schedule.

There is no significant difference between men and women concerning the incomes but, however, the average is 18-20 thousand HUF higher in case of men (168.1 thousand HUF). If investigating Herzberg's factors, we can see neither statistical, nor mathematical difference in the average incomes but, in case of women, we can see that women guided by motivator factors earn 176.5 thousand HUF, while women led by hygiene factors earn 137.6 thousands – which is a significant difference statistically, too. So, in case of women, motivation reflects in the amount of incomes, too.

If we divide the base population (n=175) into 4 groups according to their ages, we can see that 74.4% of them are younger than 31. The income gap appears under the age of 31 between the graduates led by motivator factors and the others guided by hygiene factors, in favor of the former ones, who earn 175.8 thousand HUF on average, while the other group got 137.2 thousand HUF. In the year of 31 and above it, the difference is not significant. Moreover, the relation is just the opposite, in favor of the graduates led by hygiene factors (they earn 186.4 thousand HUF, while the others led by motivator factors earn 165.4 thousands on average). A further subdivision of the first group (younger than 31) shows that some difference can be seen among the 20-25 year olds (motivator: 144.2 thousand HUF, hygiene: 115.74 thousand HUF), but it is not significant statistically – so the significant difference must appear in the second age group (26-30 year olds). Among them, the ones led by motivator factors the average income is 19.7 thousand HUF (hygiene: 157.7 thousand HUF). So, the younger students who enter the labor market as graduates gain the bigger incomes. Moreover, motivator factors are advantageous in comparison with hygiene ones.

*Table 3. Net job income of graduates by 3 way filtering and by the job sector and by the course type*

Sector	Filtering base	Motivator-guided		Hygiene-guided		Total	
		Mean in thousands of HUF	Count (n)	Mean in thousands of HUF	Count (n)	Mean in thousands of HUF	Count (n)
Private sector	Graduates of 2008 and 2010	184.6	47	152.9	77	163.4	124
	Graduates of 2007-2010	208.8	64	181.5	109	191.4	173
	Graduates of 2007-2010, without the second job income	195.9	64	171.2	109	180.3	173
Public sector	Graduates of 2008 and 2010	139.1	17	127.6	27	132.3	44
	Graduates of 2007-2010	167.8	38	153.6	53	159.9	91
	Graduates of 2007-2010, without the second job income	167.0	38	146.8	52	155.8	90
Full-time course	Graduates of 2008 and 2010	169.0	38	139.0	68	148.3	106
	Graduates of 2007-2010	191.1	71	160.0	108	167.8	179
	Graduates of 2007-2010, without the second job income	185.6	71	159.4	107	165.3	178
Part-time course	Graduates of 2008 and 2010	175.2	26	158.2	36	165.3	62
	Graduates of 2007-2010	191.1	31	194.1	54	189.9	85
	Graduates of 2007-2010, without the second job income	178.8	31	170.2	54	170.8	85
Total	Graduates of 2008 and 2010	171.8	64	146.4	104	155.3	168
	Graduates of 2007-2010	191.1	102	172.2	162	175.2	264
	Graduates of 2007-2010, without the second job income	183.3	102	163.2	161	167.2	263

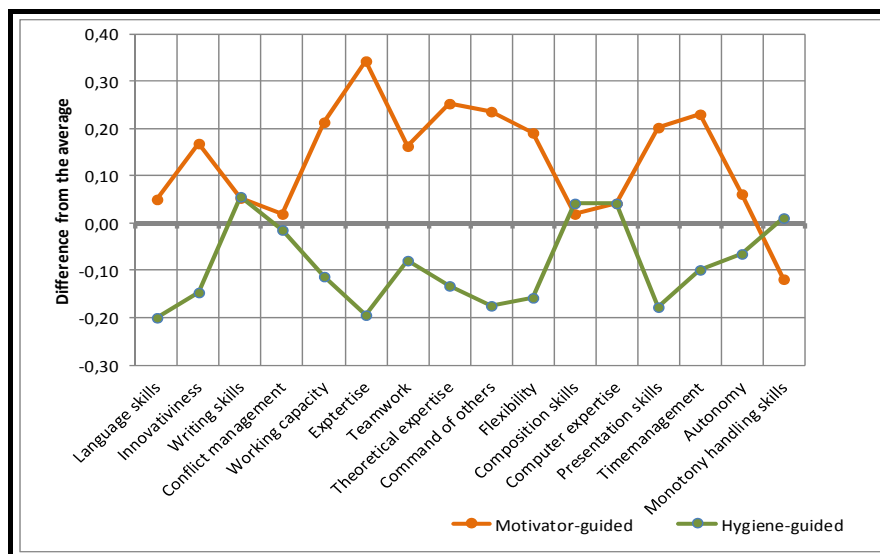
*Source:* authors' research

It is worth emphasizing that 17.2% have child/children under the age of 18 (n=174). We can find an interesting relation when investigating them: the ones led by motivator factors earn 151.1 thousand HUF on average, while the average income concerning the others (led by hygiene factors) is 164.0 thousand HUF – however, the difference is not significant. But in case of childless, motivator factors give a statistically significant advantage with an average

salary of 177.9 thousand HUF (hygiene: 146.5 thousand HUF). We cannot state that the leading factor changes when a child is born but we can suspect this phenomena.

A kind of expression concerning the connection with the institution is to keep contact with Alumni (membership, later on, financial support). We can see difference only in case of full-time Pécsiközügáz students; motivator-guided students are members of Alumni in a big proportion (34.2%), which means 60.5% of the total. As a result, it is very important to recognize the presence of motivator factors because students guided by them show a much greater propensity in keeping contact with the alma mater.

Figure 1. Competences difference from the average



Source: authors' research

It is important to examine, what types of abilities, skills and knowledge are needed to perform the given work – a block of 14 questions helped to measure this. Figure 1 shows the rate of deviation in case of each factor from the average. Differences are significant except in cases of writing ability, conflict management skills, formulation skills, IT knowledge, autonomy and monotony tolerance. It can be seen that in case of motivator-guided persons these abilities are much more needed to have bigger values. So, these persons have to focus more on the competencies needed in their profession during their studies. The most important abilities are autonomy (4.61), high workload, persistence (4.49), IT knowledge (4.42), conflict management skills (4.42) and good organization of work, time management (4.36). The less needed are the command of others (3.15), monotony tolerance (3.50), knowledge of foreign language (3.57), theoretical knowledge (3.82) and good presentation skills (3.85).

For a deeper examination I formed 3 homogeneous graduate groups by K-Means Cluster analysis.

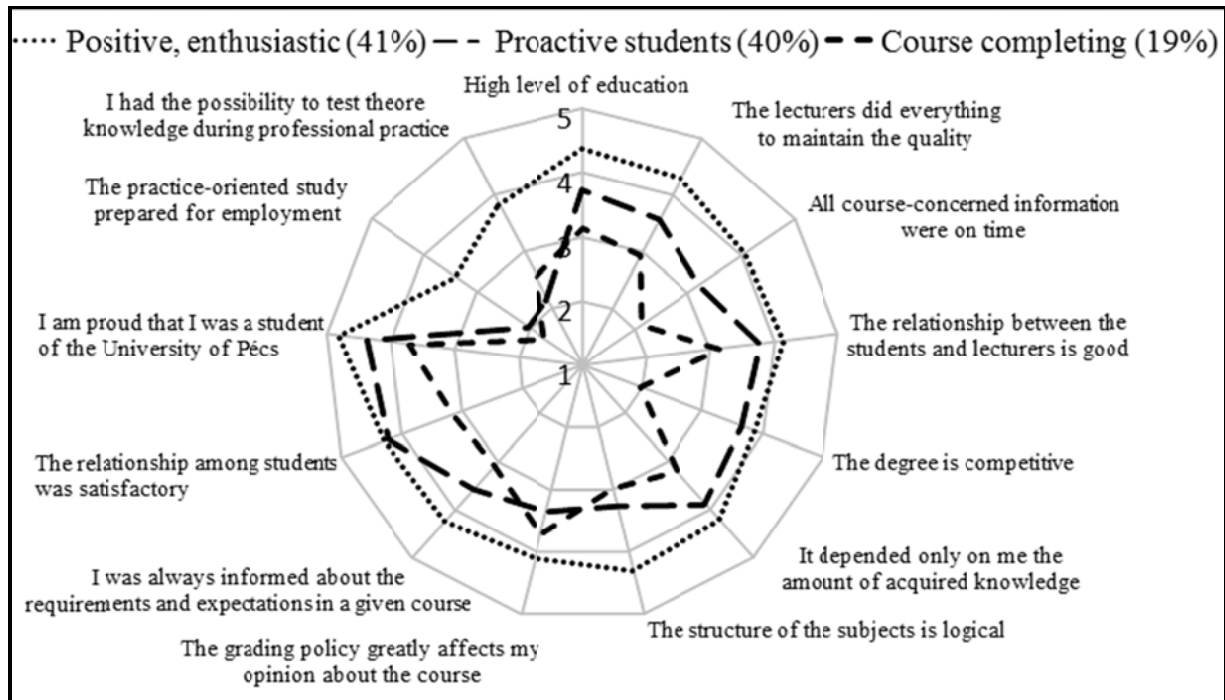
The characteristics of the delineated groups are (see Figure 2):

- Positive and enthusiastic (41.0%): essentially agree with each issue, the perceived value of the practice-oriented education compared to the other two groups.
- Proactive students (40.2%): they strive to acquire usable knowledge and want to receive all qualification-related information, although they do not think that their education is practice-oriented. In addition, environmental factors and good and positive relationships both with the lectures and the students are important.



- Course-completing (18.8%): the least satisfied group, they gave a low evaluation to the questions in almost every area. Those completing the course-related questions which depend on individual performance are relatively high, but the objective values, especially course-related information are low. They do not want to achieve high skills, but only to complete the course and to take a degree.

Figure 2. The clusters based on the education's characteristics



Source: authors' research

I also looked for relationships between some of the groups other variables, for example the average net income. Based on the results of the research of 2011 I found that the average wage of the less satisfied with the University is 135.2 thousands HUF, the positive, enthusiastic has an average of 157.4 thousands HUF with minimal difference from proactive students (n=153). By examining the full data (n=267) I could not explain why the average salary (196.5 thousands HUF) of those less satisfied with is 30 thousands HUF more than that of the positive, enthusiastic group. For a complete picture I decomposed the results to full-time and correspondent students, and we found that there is an increasing difference among full-time students, but positive, enthusiastic correspondent students have a significantly higher average salary (279.1 thousands HUF) – probably due to the fact that they had been already working before they started their theoretical training. Although, until this point none of the differences were significant.

Matching the above clusters with the Herzberg factors, the proactive students correlate with the motivators and the course-completing and positive, enthusiastic students correlate with the hygiene factors. It is easy to understand if we consider the findings concerning the correspondent students, since graduating has a relationship with higher salary.

When examining the competencies necessary for the job, I found that employers expect greater autonomy from graduates after their university careers, although these often makes conflict situations and, due to their many responsibilities, they need a high working capacity. It is interesting that, among job skills, language knowledge ranks relatively low compared to

its value among the recommendations. It may be the case that a language certificate is required to enter most organisations although not used during everyday work.

*Table 4. Net job income of graduates by 3 way filtering and by the clusters*

Filtering base	Graduates clusters	Motivator-guided		Hygiene guided		Total	
		Mean in thousands of HUF	Count (n)	Mean in thousands of HUF	Count (n)	Mean in thousands of HUF	Count (n)
Graduates of 2008 and 2010	Course completing	143.6	9	127.9	10	135.1	20
	Positive, enthusiastic	178.4	26	146.0	42	156.7	68
	Proactive students	177.5	21	156.1	42	163.3	63
	Total	172.2	57	148.5	95	157.4	151
Graduates of 2007-2010	Course completing	176.2	16	239.8	22	196.5	38
	Positive, enthusiastic	184.1	45	153.6	66	166.1	112
	Proactive students	204.3	35	162.5	67	172.3	102
	Total	190.0	97	169.8	155	175.2	252
Graduates of 2007-2010, without the second job income	Course completing	135.7	16	231.7	22	177.3	38
	Positive, enthusiastic	182.9	45	141.3	66	158.4	112
	Proactive students	201.9	35	159.3	67	169.5	102
	Total	181.8	97	162.0	155	167.2	252

*Source:* authors' research

#### 4. Conclusion

Because of the little size of the sample, further subdivision is impossible. Hopefully, this barrier will not exist in the future and we can make deeper analysis. It can be stated that the labor market position of the persons led by motivator factors is better. Not only do they use their theoretical knowledge more often in their positions, but they have bigger salaries in comparison with hygiene-guided persons guided. Members of the former group work in the state sphere in a bigger proportion but spatial differences cannot be shown. The proportion is a little bit bigger in smaller settlements. Their possibilities are different in their stages of life, but it can be seen that in the first period of their active years (between 26–30) they have a better position concerning the income. They do satisfactory jobs, adequate to their professional knowledge.

Generally, based on this it can be argued that, during professional practice, students were able to develop self-knowledge and to understand labor market expectations or not. It is not by chance that 'Pécsiközzgáz' students are aware of the advantages of professional practice and its related benefits. We see from the general GFS report of the University's Faculty of Business and Economics that a high level of significance and importance was accorded to the CCO by the graduates of 2007, 2009. Whilst the other Faculties of the University (10 in total,

including FBE) showed an average of 3.7% of contacts maintained with the CCO, at FBE this figure was 12.5%.

From the point of view of the institution, we have to emphasize that they keep in contact with the higher education institution in a bigger proportion, which is very important to the institution in the long run to fulfill its service development efforts. The number of motivator-guided people is bigger in the positive, enthusiastic and proactive groups, identified by the cluster analysis. It is worth developing a service pack to these people within Alumni, by which they can seize and further develop their competencies needed in their professions. I think that it is a positive step to start trainings after the analysis of needs. Experiences are good in connection with these, and graduates are interested in them. (PTE Alumni homepage) The essence of the system is that members get 60–70% discount to participate in the training which means a total sum of less than 10,000 HUF. This is acceptable for most employers for a one-day training.

Universities have an important role in students' 'well-being', and in this context in the achievement and maintenance of students' commitment, satisfaction and motivation. The appropriate learning form for individuals and a practice-oriented knowledge creation process allow students to develop their potential, to become more motivated and satisfied. If they feel well – and in this context much of the responsibilities are their own – they will be active, ready for different relations, willing to learn, and they will be strongly success-oriented compared to graduates who are part of 'the herd'.

#### References

- Barakonyi K. 2010: A felsőoktatás versenyképességéről. (About the competitiveness of the Higher Education). *Vezetéstudomány*, 41, 12, pp. 4–19.
- CEMI 2011: Heti Válasz – CEMI Felsőoktatási Rangsor 2011. (Heti Válasz – CEMI Higher Education Ranking). <http://www.cemi.hu/data/file/44/Fels%C5%91oktat%C3%A1si%20rangsor%20m%C3%B3dszertan%202011.pdf> [Accessed 24 November 2011]
- Farkasné, K. Zs. – Balogh, G. – Sipos, N. 2011a: Kapcsolati háló, egyediség és tehetség a munkaerő-piaci átmenetben. Diplomás pályakövetés a Pécsi Közgazdaságtudományi Egyetemen. (Network of relations, uniqueness and talent in transition in the labor market. Graduate follow-up at the University of Pécs). *Munkaügyi Szemle*, 55, 4, pp. 58–67.
- Farkasné, K. Zs. – Lóránd, B. – Balogh, G. 2011b: Talent in the professional practice. The Hungarian higher education from „practical” point of view, the example of University of Pécs. *Review of International Comparative Management*, 12, 3, pp. 521–532.
- Felvi.hu. 2011: [http://www.felvi.hu/felsooktatasihely/kutatasok/rangsorok/rangsor/online\\_rangsor\\_modszertan](http://www.felvi.hu/felsooktatasihely/kutatasok/rangsorok/rangsor/online_rangsor_modszertan) [Accessed 11 November 2011]
- Garai O. (ed.) 2010: *Diplomás pályakövetés IV. Frissdiplomások 2010*. (Graduate Follow-up System IV., newly graduated). Budapest, Educatio Társadalmi Szolgáltató Nonprofit Kft.
- Herzberg, F. 1959: *The Motivation to Work*. New York, John Wiley and Sons.
- Herzberg, F. 1987: One more time: How do you motivate employees? *Harvard Business Review*, 65, 5, pp. 109–120.
- Kuráth G. – Kovács Á. – Kiss T. – Héráné A. T. – Sipos N. 2011a: *Diplomás Pályakövető Rendszer - 2011-es pályakövetési vizsgálat a Pécsi Tudományegyetemen*. (Graduate

- Follow-up System – 2011 follow-up research at the University of Pécs) Pécs, Pécsi Tudományegyetem.
- Kuráth G. – Kovács Á. – Kiss T. – Szűcs K. – Tiszberger M. – Héráné A. T. – Sipos N. 2011b: *Diplomás Pályakövető Rendszer - 2010-es pályakövetési vizsgálat a Pécsi Tudományegyetemen*. (Graduate Follow-up System – 2010 follow-up research at the University of Pécs) Pécs, Pécsi Tudományegyetem.
- Ministry of Education and Culture of the Republic of Hungary. 2008: [www.nefmi.gov.hu](http://www.nefmi.gov.hu). [http://www.nefmi.gov.hu/letolt/nemzet/naric/act\\_cxxxix\\_2005.pdf](http://www.nefmi.gov.hu/letolt/nemzet/naric/act_cxxxix_2005.pdf) [Accessed 25 November 2011]
- Sajtos L. – Mitev A. 2007: *SPSS kutatási és adatelemzési kézikönyv*. (Handbook for SPSS research and data analysis) Budapest: Alinea Kiadó.