

## What is the value of a Hungarian degree?

### An analysis of the labour market position of students graduated from a Hungarian higher education institution

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*In the European Union, the reform of higher education institutions represented by the Bologna Process places its central focus on creating student and employee mobility, making education systems more flexible and turning higher education output in a direction that meets labour market demands. The present paper examines the labour market position of graduating students in a Hungarian higher education institution. The empirical research, based on questionnaires, introduces the employee groups that can be found in today's Hungary, specifically in the case of fresh graduates and describes the main characteristics of these clusters. The goal was to find an answer to how much higher education institutions prepare students for the world of work and how the graduates evaluate the usability of the acquired knowledge. The research described in the present studies has already been repeated and current plans include the regular completion of similar surveys in the future. The results and findings of the research may serve as a basis for comparing the opportunities of graduate students leaving Bologna-type training programs and the efficiency of the present ones, as well as the consequences of changes.*

*Keywords: higher education, student and employee mobility, labour market*

#### **1. Introduction**

Financed from the tax payments of citizens, part of the state's task worldwide is education. Therefore, it is relevant whether this money is used in a profitable way. Relevancy can be determined by whether students leaving the education can utilize the knowledge they have obtained and meet the demands of the labour market. Hungarian researchers have been interested in higher education output and responses to labour market demands for decades, but the question of incongruence still represents an unsolved task (Veress 1999). The government strives to establish

harmony with the help of various regulations and employment forecasts, however, these efforts seem to reach only partial success.

The present paper analyses the market position of graduate students of a Hungarian higher education institution. For several years, the institution has engaged in surveys aiming to assess the needs of its active students and the degree of satisfaction related to the palette of the institution's educational and supplementary services, but the university has not yet conducted any research focusing on the labour market position of its fresh graduates, their relations with their parent institution and their judgment of its institutional services. Due to spatial limitations, only parts of our graduate follow-up research results will be discussed and will focus on the usability of knowledge acquired at the university and the labour market position of fresh graduates.

## **2. Theoretical background**

### *2.1. Characteristics of education services*

Education is a service where the fundamental features of services occur with different emphases and the special strategic tasks deriving from these also set special demands for the service provider. Out of the four basic features (intangibility, inseparability, heterogeneity and perishability) intangibility, inseparability and heterogeneity heavily influence the judgement of educational services:

- Services do not have parameters and features that could be inspected by senses; they can only be revealed empirically. In the sphere of education, the forecasting role of physical parameters is small, while future students can collect information about the service much more via communication, like the institution's promise and other people's experiences (word-of-mouth); consequently, tangible factors play hardly any role in their decision of choice and therefore, the sense of risk is especially high in the preceding process and in the course of services as well.
- Services are usually consumed the moment they are created; the provision and use of services usually happens in the same place and time and the user actively participates in the service process (Zeithaml et al 1985). Based on the intensity of the relationship between service provider and user, Chase distinguishes services based upon low and high direct consumer relations, where the interaction time is considered and believes that the longer the two parties deal with each other, the more the service process needs regulation (Chase 1978). Education is a service where the time that the two parties spend

in the “system” is very high; therefore, the process assumes special significance in how consumers evaluate service quality.

- The performance of service providers and the consumer evaluation of performance vary, are uncertain and, due to the human factor, quality is heterogeneous. In the case of educational services, fluctuating quality occurs more intensely, since here, on the one hand, standardizing is not logical, on the other hand, subjectivity of the parties has a stronger influence on the evaluation of quality due to the complexity of service dimensions.

Besides the specialities of the service process itself, providers have some special characteristics too. Institutions providing education services have a strong hierarchical structure and their organizational culture is mainly based on tradition. These organizations have numerous, deep-rooted traditions reaching back for centuries (e.g. the departmental structure based on academic fields, adherence to the faculties and rules), due to which they resist changes, and the market expectations that appear towards the students bear secondary significance to them (Harmon 1993, Sirvanci 2004).

The third problem in the case of educational services is defining the consumer group, since the identification of the consumer in higher education is much more complicated than in business life. Neither researchers dealing with higher education, nor institutions providing the service have reached any agreement on who can be regarded as consumers. While some only consider students as consumers, in other approaches, consumers appear in a much more differentiated way and, beyond students, include institutional colleagues, parents, former students, employers, the local community and society in the broader sense. Nevertheless, it can be seen that some of the aforementioned groups could be regarded as stakeholders rather than direct consumers. If the production model is applied where incoming students can be regarded as raw material, while outgoing graduates are the finished product; the opinion of the employers and fresh graduates is the most important factor for the institution.

## *2.2. Research background of the follow-up studies completed among graduate students*

Starting from the 1980s, various studies emerged in the international literature that dealt with the labour market position of graduate students. The Bologna process made such analyses particularly important, therefore, international comparative research projects, like the CHEERS project in 2000<sup>12</sup> were also launched. Researchers mainly focused on the following subjects:

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<sup>12</sup> Careers after Higher Education: a European Research Study

- How students' competences, the labour market conditions, employers' expectations and the dynamics of the transition mechanisms interact in determining the relationships between graduation and initial employment.
- How successful graduates are on the labour market where "success" is measured in multiple ways (e.g. remuneration, status, on-the-job utilisation of knowledge acquired during the course of study).
- What the links are between the competences acquired during the course of study and the actual work tasks as perceived by the graduates.
- How the study conditions and provisions the students experienced actually "matter" for their subsequent employment and work<sup>13</sup>.

In Hungary, not only the Bologna Process induced these studies but also the expansion in higher education that occurred in the 90s<sup>14</sup>. A large number of worried statements were published about the fact that Hungary is likely to experience a dramatic increase in unemployment among diploma-holders because the structure of education fails to follow the needs of the labour market and the emergence of the quantitative approach harms quality. Several researchers examined how big a threat lies in the deterioration of fresh graduates' situation on the labour market and in the increase of unemployment among people with secondary education (crowding-out effect). According to certain research, despite the great proportion of graduate inflow, unemployment among diploma-holders has not increased. This is partly due to the fact that 48% of the workplaces created after the economic shock in 1989 emerged in graduate positions and demands in terms of qualification also increased concerning the already existing workplaces. However, it is not possible to measure how successful or unsuccessful graduates prove by only using their chances of finding employment, but also with the help of benefits acquired in terms of their wages. The market can gain information concerning the measure of demand by observing changes in prices (in other words, relative wages). Various Hungarian and international research analyzed the "returns to higher education"<sup>15</sup> deriving from schooling level. According to a survey conducted in ten European countries, Hungarian graduates' returns to higher education are considerably high. While Austrian males with higher education degrees earn 45% more than their companions

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<sup>13</sup> Schomburg, H. – U. Teichler 2004: Increasing Potentials of Alumni Research for Curriculum Reforms: Some Experiences from German Research Institute. Location: [www.gradua2.org.mx/docs/bolonia/Schomburg.de](http://www.gradua2.org.mx/docs/bolonia/Schomburg.de)

<sup>14</sup> The number of full-time students admitted to higher education tripled within ten years and in 2001 full-time students taking part in higher education already represented one-fourth (24.7%) of the population with the given age (18–22) (Lannert et al 2004).

<sup>15</sup> Economic gains an individual may make by investment in his/her education

with secondary level qualification, in Hungary, these figures reach 103% (Kertesi–Köllő 2005). Certain research proves that until 2001, the market considered over-schooling (if the employee completed more classes than necessary) more attractive than sufficient education.

The other direction of research projects in Hungary dealt with the evaluation of graduating students' skills, abilities and acquired knowledge. In the framework of a national empirical survey conducted at the beginning of 2007, the Research Institute of Economics and Enterprises interviewed the leaders and human resources managers of 1000 enterprises about the chances of fresh graduates to find workplaces, the expected changes in the demand and their satisfaction with these fresh graduates' skills and knowledge. The research results showed that in Hungary, employers consider precise work, aptitude to acquire new skills, ability to work independently, theoretical foundations in the profession, computer literacy, openness to work in a team and organizing competences highly important regardless of graduate students' actual profession (Kézdi et al 2004, Selmeczy 2007).

The above mentioned macro-sociological studies are quite important, but they are usually unable to describe the diversified nature of higher education institutions and their inhomogeneous "market performance". Unfortunately, the systematic institutional level researches are still rare. Although certain student researches are conducted periodically, the majority of Hungarian higher education institutions primarily focus on surveying the satisfaction level of their active students rather than the efficiency of education activities after students leave. However, in the long run, this approach cannot be maintained since the judgment of the market and employers will prove the determining factors (Barakonyi 2004).

### **3. Empirical research in a Hungarian institution**

#### *3.1. Defining the problem, research objectives*

Alumnus research usually assumes a pragmatic approach and, deriving from their nature, does not address serious theoretical dilemmas. It simply examines how graduate students can utilize their knowledge, what types of successes or failures they experience on the labour market after their university years and how employers judge their acquired knowledge (Vámos 2000). Consequently, a theoretical model was not constructed for the empirical research either, but the goal was to merely find an answer to how the graduates of the institution manage on the labour market and, based on this, how they judge the years spent at the university. In line with this research concept, the following objectives were set:

- Students' satisfaction level with the university at the time of graduation, whether this changed in the light of experiences on the labour market, how they judge the institution's reputation compared to other Hungarian universities, whether they regard their acquired knowledge useful and how willing they feel to return to the institution.
- To determine how much the university prepared graduating students for the skills and knowledge (for example, knowledge of languages, solving practical problems) that the labour market appreciates, but is usually less emphasized in the traditional education structure.
- What the most important strengths of the institution were in different fields like education, complementary services or student life.
- To establish what kind of relationship graduating students have with their parent institution.
- How fresh graduates made the first steps on the labour market: how long it took them to find jobs, what were the most popular recruitment channels (how the university's job fairs helped in this), how many times they changed jobs, how their present employment circumstances are (e.g. wages, leaving the profession).
- How former students evaluate their own preparation level in the different work areas and in which scientific field and how they imagine updating their knowledge, acquiring new competences and whether they count on their Alma Mater in this.

The present paper introduces only some parts of the research results; it discusses the evaluation of the usability of knowledge students acquired in the institution and the satisfaction level of the graduate groups managing differently on the labour market with the institution, in general, and educational services, in particular.

### *3.2. Introduction of the population, the sample and the research method*

The examined institution is Hungary's second largest university that celebrated its 85th anniversary last year. At the time of the survey, eleven faculties operated at the university and the number of its students exceeds thirty thousand. Based on the above said, the employment opportunities of the graduates leaving the institution that provides an unusually wide range of supply represent a highly important socio-economic question, since the students leaving the institution become the components of workforce supply not only in the region but also in the whole country.

The students regarded were those who graduated in 2002 and 2003 as the population, consequently, instead of school years, calendar years were used as a

basis. Based on this, the 11,305 students graduated in the examined years formed the population.

The sample was compiled to make it representative according to the year of graduation, faculties and attendance types. In the course of the research, self-administered questionnaires were used that were sent to a total of 3600 graduates via mail, so almost one-third (32%) of the students leaving the university was reached in the given period. A total of 566 questionnaires were returned. The 16% of response rate may be considered good; since no similar research in Hungary managed to reach 20% percent of response rate. The present paper introduces some sections of the survey that may carry important information for the institution's management and may also point out useful directions for the decision makers of the higher education scene.

### *3.3. The main results of the research*

#### *3.3.1. Usability of the knowledge provided by the institution*

According to graduate students, the university mainly excels in transferring theoretical knowledge; this opinion was shared by almost two-thirds of the respondents, although the number of those respondents who could not acquire the theoretical background necessary for their profession exceeds 10% in this case too. The weakest point lies in foreign language education. The majority of higher education institutions suppose that secondary education solves transferring language competence successfully, therefore, they do not have the sufficient amount of capacities that would make it possible to satisfy the diversified needs (different languages and levels, professional specifications) of such a great mass of students.

The other weak point lies in the question of labour market expectations and finding employment. According to the respondents, the institution must improve its services in this area as well. At the same time, the fact cannot be forgotten that in the case of higher education services, users must also actively participate in the process, they themselves must collect information about the vendibility of the different professions and they must choose faculties and training forms accordingly. The Bologna system will perhaps ensure a greater degree of flexibility in terms of allowing students to modify their chosen training area in the course of their training period, and instead of specialization, emphasis will fall on general and more widely applicable knowledge. Naturally, the players of the user side – employers – must also change their formerly assumed role, since students with a general level of preparedness can only become competitive if companies and institutions offer them a chance to acquire the necessary special professional competences by ensuring participation in internship programs during their training period.

*Table 1.* Evaluation of the competences and skills obtainable at the university on a 5 point rating scale (where 1= not at all, 5= absolutely) in percentage of the respondents, mean, std. deviation.

<b>How much the university prepared you for...</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean</b>	<b>Std. deviation</b>
Solving the theoretical problems related to your profession? (N=560)	4	8	24	41	23	3,73	1,021
Solving the practical problems related to your profession? (N=560)	13	27	30	22	8	2,87	1,145
Finding a job/labour market demands? (N=556)	32	27	23	13	5	2,33	1,200
Communication in foreign language? (N=554)	41	26	14	10	9	2,20	1,311
Teamwork? (N=557)	15	17	28	27	13	3,06	1,251
Applying modern technology? (N=556)	19	24	27	21	9	2,77	1,231
Solving problems of managing and organizing? (N=555)	22	24	26	22	6	2,66	1,221

*Source:* own construction

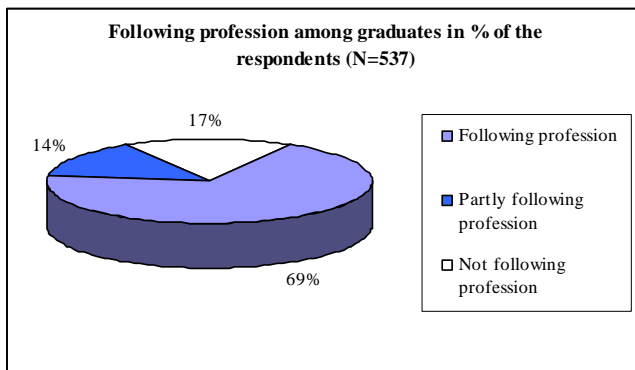
Problems of managing and organizing prove problematic for 46% of the students. 43% of the respondents considered learning how to apply modern technology as a shortcoming, while almost one-third of them were satisfied of preparation offered by the university in this area. All together, students regarded preparation for solving practical problems to be weak and the average did not reach medium here either, since 40% of the respondents claimed that as fresh graduates, they were unable to solve practical questions relying on their knowledge gained at the university. 40% of the graduate students considered preparation for teamwork to be good; besides the transfer of theoretical knowledge, this was the other area that produced more satisfaction in the respondents.

### *3.3.2. Labour market position of graduate students*

Presently, 89% of the students who graduated in the years of 2002/2003 conduct earning activities, their vast majority (62%) are employed at their first workplace while further 26% of them are active in their second job. 9% are employed in a third position and only 17 respondents changed jobs four-six times. More than two-thirds of the respondents are employed in their profession, while the percentage of those who left their profession reaches 17%. Almost all of them think that their qualification fits their work, but at the same time, over one-fifth of them (23%) have positions that could be filled in with lower qualification and 4% indicated that they would need higher qualification in order to perform their work adequately.



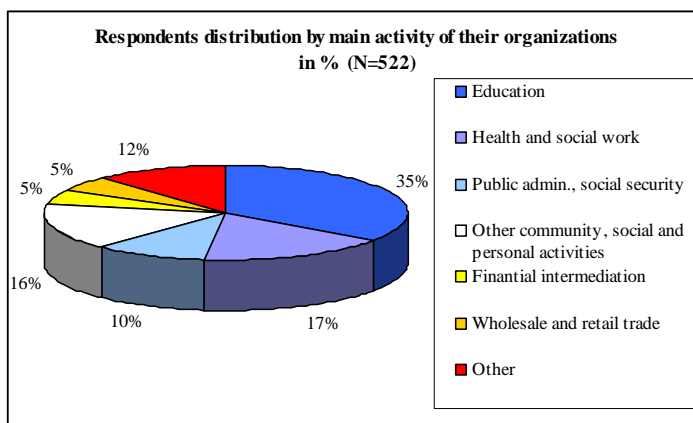
Figure 1. Following profession among graduates



Source: own construction

Most respondents (37%) consider the ethical recognition of their profession to be average, 35% regards it as good or very good, while 28% think that their learnt profession falls among the ones that qualify as badly or less recognized, while the average evaluation of ethical recognition reached 3.06. Respondents had less positive opinion about financial recognition (average=2.73): 39% of them think it is average, while 41% believe that their profession falls among badly or less recognized ones.

Figure 2. Respondents distribution by main activity of their organizations in percentage (N=522)



Source: own construction

Considerable part of the respondents (35%) work in education – owing to the graduating students of teacher training present in the sample in significant number –, but many respondents found employment in the health care (17%) and public administration (10%). 16% of them found jobs at organizations providing other social, community or personal services. Beside these, only financial activities and their complementary services and trade reach 5%, while less respondents work in other branches.

### 3.3.3. Characteristics of the groups of graduates according to their labour market position

Groups of graduates were formed based on the variables most characterizing their labour market position. The nine variables serving as the basis of grouping include the following: duration of job search for first job after graduation, how many times they changed jobs, how much their qualification corresponds to their job, how much their monthly net income is, in which county and for what size of organization they work, how is the ethical and financial recognition of their learned profession, whether they follow their profession or left it<sup>16</sup>. Clustering was done using the Ward method, and six larger groups were established. Table 3 contains the number of respondents in the different clusters.

Table 2. The number of respondents in the different clusters and their distribution

Clusters	N	%
Cluster 1	70	16
Cluster 2	95	21
Cluster 3	21	5
Cluster 4	92	20
Cluster 5	76	17
Cluster 6	96	21
<b>Total</b>	<b>450</b>	<b>100</b>

Source: own construction

Those who belong in the first group may be called the elite of the labour market. It is only true for this one of the created clusters that all of its group members found employment in the capital. None of them changed jobs more than three times (half of them are employed at their first workplace and slightly more

<sup>16</sup> We tried several clustering methods and we also changed the group of variables creating the basis of clustering, however, this method offered the most suitable distribution. It should be noted, that various methods we tried led to similar results.

than one-fourth of them work in their second job), but compared to the sample, this group also includes a high rate of those (23%) who already have their third job. Most of them have jobs corresponding to their qualification and compared to the sample a smaller value indicative represents those (11%) who found jobs tied to lower qualification. There are few who do not at least partly work in their own profession (6%). The percentage of those who consider the ethical recognition of their work high is the largest in this group: 60% rated 4 or 5 and they are more satisfied with their financial recognition than others: 45% rated it to be good or outstanding. 37% of this group already worked at the time of graduating, 47% found employment within 1–3 months, but this does not mean considerable difference compared to the percentages of the sample.

The second group includes the losers of the labour market. This group has a relatively high percentage (18%) of those who found jobs after half a year, but the rate of respondents searching for employment for four to six months is also the highest here (12%). Most of them have their first or second job, 94% of them feel that their work could be performed with lower qualification as well. Although the majority works in the country, a relatively great percentage of them (20%) found employment in the capital. This group includes the highest percentage of those who work for small organizations with one to 20 employees. Over half of them (52%) failed to stay in their own profession, and among all of the groups, this one has the lowest rate of those who stayed in their profession (24%). A significant part of them think that their profession receives hardly any ethical recognition or none at all (42%). Only the members of the sixth group have a worse opinion than this. They consider their financial recognition to be average or low.

The third group is the smallest in number, only 21 respondents belong here. This is the group of people seeking their place. One of their major characteristics lies in changing jobs very often. While in other groups, members are not found who have changed jobs more than three times, each member of this group works at least in their third workplace, but almost half of them (10 people) already have their fourth job. It generally took those one to three months to find employment. A great part of them – 13 people out of the 21 – assume positions corresponding to their qualification, while six respondents have jobs that could also be performed with lower qualification. In terms of leaving their profession, the members of the group display a mixed picture: 11 out of the 21 respondents work in their profession, while eight of them changed their profession. Nine members of this group perceive their jobs as average, five people consider it to be badly reputed, while six of them tend to view it as well recognized. As for financial reward, they tend to be more pessimistic,

11 people categorize their learned profession as badly reputed and there is nobody who considers it as well or excellently recognized.

The fourth group consists of the middle class with good earnings. Here, the percentage of those who did not want to find employment after graduation is relatively high (11%), while the rate of those who had already worked at the time of leaving university is the smallest (20%). (This proportion is one-third in the sample.) The majority of them (96%) work in their first or second job; what is more, this is one of the groups with the highest rate of people in their first job (70%) and in this regard, only the fifth group exceeds this one where this figure is 84%. This group contains the highest rate of those who have jobs corresponding to their qualification (97%). Similarly to the members of the fifth and sixth group, none of them work in the capital. The proportion of respondents working for large organizations is the highest in this group, and in this respect they also come before the elite. 40% and 39% found employment in the two largest categories – workplaces with more than 500 employees and those employing 100–500 people. Many work (90%) in their original profession, and only two people changed their profession. The majority considers their own profession to receive good or at least average recognition (46–44%) and they have similar, although slightly less positive, opinion about their financial recognition.

The fifth group includes committed respondents. This is the group of those who were the quickest in finding employment: over half of them had already worked at the time of graduation and further 28% found employment in the first month. Those who fall in this group rarely change jobs: more than four-fifths of them (84%) work in their first job and 13% in the second one. Although 91% have jobs that correspond to their qualification, the percentage of those who think that their position would require higher qualifications is the highest in this group (9%). The majority have wages falling in the lower medium category (41–45%) just like the members of the third group. All of them found employment in the country; most of them (71%) have jobs in workplaces falling in the two smallest organization categories with one to 50 employees. The rate of those who found employment in their profession is the highest here (95%) and there is nobody among them who left his or her profession. In ethical terms, they are the ones who consider their profession the most recognized; 15% rated it excellent while 45% felt it was good. In financial aspects, they think that their profession falls in the category of medium and well recognized ones.

The sixth group is the one of people with little recognition. Most of them found employment in the first three months, one-third of them had already worked at the time of graduation. Thirty-five percent have already changed their job once, although 63% still work in their first job. Ninety-six percent believe that their qualification is in harmony with their job. This is the worst-earning group, all of its members found workplaces in the country and they primarily work for smaller organizations; there are only a few who are employed by organizations with more than 100 employees. The proportion of those following their profession is similar to the rates characterizing the sample: 77% work in their profession while 9% left it. Over half of the cluster members feel that their profession receives low (53%) or very low (9%) ethical recognition. The members of this group consider their profession to be the least recognized ethically. In financial terms, the situation is even worse: 12% think that their learned profession is the least recognized, while 55% feel it receives bad recognition.

#### *3.3.4. Distribution of clusters based on branches*

In terms of branches, those who work in financial areas and other communities, social and personal services are over-represented in the first group; while there are hardly any members employed in the education. The majority of the second group work in trade (22%) and other areas (18%), while people employed in the education are especially under-represented here. People seeking their place do not display any characteristics in terms of branches; their number is too little for this. In the fourth group, people employed in the administration are over-represented, although there are many of them who found work in the health care, while employees of the education branch are fewer in number compared to their proportion in the sample. A significant part of the fifth group (47%) are employed in the education, but the rate of those who work in the health care is also relatively high. 61% of people with little recognition found jobs in the area of education, while the other branches, especially administration, finance and trade are under-represented.

Table 3. Clusters according to branches

	Education	Health care	Public admin.	Other community etc. services	Finance	Trade	Other	Total
<b>First group: elite of the labour market</b>								
<b>N</b>	13	9	10	16	12	1	7	68
<b>%</b>	19	13	15	<b>24</b>	<b>18</b>	1	10	100
<b>Second group: losers of the labour market</b>								
<b>N</b>	14	14	8	13	7	20	17	93
<b>%</b>	15	15	9	14	8	<b>22</b>	<b>18</b>	100
<b>Third group: people seeking their place</b>								
<b>N</b>	8	4	0	5	1	1	2	21
<b>%</b>	38	19	0	24	5	5	10	100
<b>Fourth group: middle class with good earnings</b>								
<b>N</b>	28	21	18	7	3	0	13	90
<b>%</b>	31	23	<b>20</b>	8	3	0	14	100
<b>Fifth group: committed people</b>								
<b>N</b>	35	15	7	11	1	1	4	74
<b>%</b>	<b>47</b>	20	9	15	1	1	5	100
<b>Sixth group: people with little recognition</b>								
<b>N</b>	59	14	3	10	0	1	9	96
<b>%</b>	<b>61</b>	15	3	10	0	1	9	100
<b>Total of the entire sample</b>								
<b>N</b>	157	77	46	62	24	24	52	442
<b>%</b>	36	17	10	14	5	5	12	100

Note: \*The values highlighted in the table show significant deviation compared to the proportions found in the entire sample.

Source: own construction

### 3.3.5. Satisfaction of the different labour market groups

In terms of satisfaction with the university, there is no significant difference among the clusters; the members of the fourth group are the most satisfied, while this rate is the lowest among the members of the third group. As far as reputation is concerned, the second group articulates the worst opinion (average=3.92); while there is no real difference in terms of the average displayed in the other groups. The expectations of the second and third group associated with training were realized to the least extent, but no significant difference in the cluster averages occurs here either. The only difference was found concerning the utility of knowledge acquired at the university; while the group of the losers of the labour market ranked this to be 2.87, many of

them left their profession and are forced to work in jobs demanding less qualification than they have, the fourth group of the middle class with good earnings produced the highest average (3.74) in this category. It is worth noting that the group assuming the best position on the labour market seems not particularly satisfied with the institution, the averages of this block of questions are situated in the middle section of the cluster averages. They probably attribute the achieved success to themselves rather than to the institution. At the same time, the group with the worst situation belongs to the ones least satisfied in several areas.

*Table 4.* Clusters' opinion about the university, means

	<b>How satisfied were you with the institution at the time of graduation? (1=not at all, 7=absolutely)</b>	<b>The university's reputation compared to other institutions (1=very bad, 5=outstanding)</b>	<b>How much did education meet your previous expectations? (1= significantly worse, 5=significantly better)</b>	<b>How useful do you consider your knowledge acquired at the university in your present work? (1=not at all, 5=indispensable)</b>
<b>1. group: elite of the labour market</b>	5,10	4,03	2,90	3,56
<b>2. group: losers of the labour market</b>	5,15	3,92	2,86	2,87
<b>3. group: people seeking their place</b>	4,90	4,14	2,86	3,00
<b>4. group: middle class with good earnings</b>	5,38	4,15	3,12	3,74
<b>5. group: committed people</b>	5,34	4,16	3,03	3,62
<b>6. group: people with little recognition</b>	5,32	4,12	3,07	3,53
<b>Total</b>	5,25	4,08	2,99	3,43

*Source:* own construction

Beyond general questions, the differences were examined in the satisfaction of the various clusters with education; representing the most important service area of the institution. In the four questions of the areas of education, the averages of the results show significant difference only in the case of recognized lecturers and professional practice. It is also important to note here that the group managing best on the labour market, proved the least satisfied with lecturers and professional practices; while the group of people with little recognition (cluster 6) gave the highest average of opinion in two questions and the second highest one concerning

two other issues. Besides those, the cluster of committed people proved to be the most satisfied.

*Table 5.* Clusters' satisfaction with education areas, cluster means (5 point rating scale where 1= not satisfied at all, 5= absolutely satisfied)

	Recog- nized lecturers	Activities tailored to personal needs	Up-to- date know- ledge	Suffi- cient practice
<b>1. group: elite of the labour market</b>	<b>3,41</b>	2,61	3,69	<b>2,16</b>
<b>2. group: losers of the labour market</b>	3,83	2,71	3,67	2,55
<b>3. group: people seeking their place</b>	3,71	2,86	<b>3,57</b>	2,45
<b>4. group: middle class with good earnings</b>	3,70	<b>2,53</b>	3,85	2,76
<b>5. group: committed people</b>	<b>3,95</b>	<b>2,99</b>	<b>3,92</b>	<b>2,92</b>
<b>6. group: people with little recognition</b>	<b>3,91</b>	<b>2,92</b>	<b>3,98</b>	<b>2,95</b>
<b>Total</b>	3,77	2,76	3,81	2,67

*Source:* own construction

Analysis also focused on whether there were differences among the clusters in questions most affecting the relations of the university and the labour market – that enquired about how much the institution prepared graduating students for the different practice-oriented areas (Table 6). Considering the averages, there is significant difference only in the first two cases, which are judging preparation for theoretical and practical problems and the field of applying modern technology. In three out of the seven questions – in the areas of preparation for theoretical and practical problems and applying modern technology – committed people seem to be the most satisfied and they also were one of the groups that felt most prepared for the expectations of the labour market. The group of people seeking their place was the least satisfied with the most areas; however, in two questions – in terms of the knowledge of foreign languages and expectations of the labour market – they considered themselves the most prepared ones. The groups of the losers of the labour market and people with little recognition could righteously feel that the institution had not prepared them for the world of work. The first group – just as in the case of the questions discussed so far – did not articulate either a positive or negative opinion; although in terms of the knowledge related to the labour market, they are not far behind the average of opinion in the most satisfied group, while they missed preparation for teamwork the most.



Table 6. How much the university prepared graduates for the different areas, cluster means (5 point rating scale where 1= not at all, 5= absolutely)

	Theoretical problems	Practical problems	Labour market	Knowledge languages	Team-work	Technology	Management
<b>1. group: elite of the labour market</b>	3,84	2,54	<b>2,43</b>	2,26	<b>2,93</b>	2,86	2,55
<b>2. group: losers of the labour market</b>	3,41	2,65	<b>2,27</b>	<b>2,16</b>	3,13	2,69	2,72
<b>3. group: people seeking their place</b>	3,2	<b>2,45</b>	<b>2,45</b>	<b>2,5</b>	3,15	<b>2,6</b>	<b>2,3</b>
<b>4. group: middle class with good earnings</b>	3,83	2,99	2,38	2,29	3,07	2,79	<b>2,78</b>
<b>5. group: committed people</b>	<b>3,89</b>	<b>3,05</b>	<b>2,44</b>	<b>2,15</b>	3	<b>2,99</b>	2,64
<b>6. group: people with little recognition</b>	3,87	2,94	<b>2,26</b>	2,41	<b>3,18</b>	2,87	2,67
<b>Total</b>	3,74	2,82	2,35	2,27	3,07	2,82	2,67

Source: own construction

#### 4. Conclusion, possible research directions

One of the important achievements of this empirical research, completed among the graduating students of the examined institution, lies in the fact that the respondents highlighted some of the university's weak points. The improvement of which will become indispensable in the future in order to ensure that students leaving the institution succeed on the labour market and the university gains competitive advantages on Hungary's transforming higher education market. It is already certain

that instead of theoretical knowledge, emphasis must fall on practice-oriented training and students must be prepared for managerial and organizational competences that prove essential in the world of work, while the present system of language education must also be reconsidered.

The clusters of freshly graduated professionals introduced in connection to the research results indicate that the chances of students leaving the university to find employment, their experiences in the world of work and their labour market position are rather heterogeneous, and groups with different situations also judge the university and the usability of the acquired knowledge differently. No obvious connection between labour market position and satisfaction with the institution can be identified. Supposedly, respondents define satisfaction much more based on the institution's image and the quality of the years spent there instead of their labour market position. The distribution in the opinion of the different groups provided the university with useful information and it may serve as the basis of new directions for handling the educational problems of the different segments.

The survey also raises various methodological problems. Research results obviously indicate that assessing the present conditions is not enough and further surveys will be necessary. This research team has already started improving the survey by refining the questionnaire in greater parameters and modifying the interview method. In the long run, the harmonization of similar surveys would be necessary on the national and international level, and a broadly similar – even if not totally corresponding – model should be developed for alumni surveys.

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