

The future of master's degree, new enrolment challenges – the case of business and economic faculties

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Nowadays there is an increased interest towards university enrolment, because universities in Hungary, especially economic faculties, are faced with the fact that previous enrolment practices do not result in enough number of applicants. This can be due partly to demographic trends and partly to education policy changes. These demographic trends are relevant not only to bachelors but to master students as well. Based on current practices, public funding is not guaranteed for masters programs. As a consequence, institutions and faculties that would like to ensure their presence on the market have to be proactive and to identify higher education motivators at master's level. The main aim of this study is to explore the possible student choices and the factors of decision processes concerning the further education on a master's level. For identifying the problem, besides collecting secondary data, primary research was carried out using a broad variety of research tools. As a conclusion of the study a decision tree model was created.

Keywords: higher education, master's degree, decision points, motivation.

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Introduction

Higher education itself and the development of the higher education system do not represent a self-serving activity; it serves the commonweal and it contributes to the rise of nations. It provides ground to the emergence of an advanced knowledge base and to an

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economic upraise. All these represent the basis of persistency and an excellent mean to join the developed regions of the world.

As a consequence of the above mentioned aspects, higher education should give off professionals that are able to solve the problems of their age and have updated and qualified knowledge. Graduate people should not only be aware of the theoretical knowledge but they should also have practical knowledge so that they can start their life easier, solve problems and join easier the processes of their everyday life. They are able to switch on to the updated and targeted economic and social systems to be able to fulfill their profession at a high level. It is important that the education fit labour market conditions (Katona 2002). Currently, this issue is extremely vital as Berács's (2008) research showed that a clear trend can be observed, namely the competitive advantage and especially the export potential of Hungarian higher education is decreasing. All this indicates that universities should concentrate on developing a strong market orientation approach (Casidy 2014).

In the last decade marketing has gained a critical role among the activities of the European higher education institutions. Like other organizations, higher education institutions evolved and adapted their service offerings to the dynamic economic and social environment. Demographic trends, technological development, changing international economic environment as well as the varying labour market conditions and living standards made a deep influence on the higher education system and on the judgment of the society. After the economic crisis people and institutions paid more attention to the value of the degree and whether it fits the needs and desires of employers. As a consequence, higher education institutions face several problems in the current macroeconomic environment and they react too slowly to the society's expectations and requirements.

Relevance of higher education marketing

The roots of higher education marketing go back to the 1980's. Since that period universities have been competing for students and for financing opportunities (Drummond 2004). Participants in the higher

education system came to the conclusion that it is useful for universities to build market relationships and to react to the actual market trends (Dirks 1998).

If we were to define education marketing we would have to analyze areas that show similarities and compare them to each other. Thus, marketing activity used by higher education institutions shows conformity with both societal and services marketing. It is difficult to make a choice between the previously mentioned areas because in more and more countries there are private institutions besides public ones. From the point of view of societal marketing the main focus is on the increase of individuals' education level. Their main aim is to gain basic knowledge and to develop their skills and competences so that, after graduating, they can meet labour market standards. Therefore, the goal of education marketing is to create harmony between individual aims and the collective needs and desires of the society through education (Filip 2012). Higher education product/service gets to the members of the society via teaching and learning giving professionals and experts to specific scientific areas. All this means that knowledge and skill transfer between universities and the society can be measured in the number of graduates and in the development of human capital. With the help of targeted marketing programs, universities are able to define the expectations of the society and labour market and they can focus their education offering on them. By presenting the right higher education product – that takes the stakeholders' needs and desires into consideration – universities can increase their organizational efficiencies and their students can easier gain the desired job (Filip 2012). If the higher education institution provides the right skills and competencies its students will reach professional success more easily, even in this continuously changing business environment. All these show us that positive effects prevail both towards individuals and the society as a whole (Eckel 2007).

On the other hand higher education marketing is also closely connected to the services marketing, because it can be characterized by the attributes of the services marketing (intangible, heterogeneous, inseparable, perishable).

Universities and other higher education institutions have to create their offering portfolios according to the specific needs and desires of individuals and organizations. These individuals and groups are called stakeholders. The recognition of stakeholders' expectations and the intention towards satisfying their needs concerning higher education should be the basis of the marketing strategy and the tactical means of execution of the universities. According to Kotler and Fox (1995) the stakeholders of higher education can be classified into sixteen groups. This is the reason the current and the potential students, the faculty, the parents of the students, the employees (including administration), the alumni, the suppliers, the competitors, the government, the members of the business life, the media, the foundations, the supervisory bodies, the accreditation institutions, the local community and the community are, in a broader sense, integrated. Hewitt and Clayton stated in 1999 that among the most significant higher education stakeholders one can mention the students and the lecturers (Filip 2012). Pavluska's (2009) research showed that the most crucial buyer is the student but the group of stakeholders of the universities also consists of the partners in the network of the institutions, as well as the public opinion, the decision makers of the labour market, the government and its institutions, the supervisory bodies, the supporters, international organizations and the communities of other activities. As a conclusion, we can state that the demand of students origins from the expectations of the labour market members and/or society.

Pascarella and Terenzini (1991) as well as Leslie and Brinkman (1988) proved in their research that a higher education level leads to advanced salaries, longer working years, more career mobility and better quality of life. Carlson and Fleisher (2002) expressed that higher education is a direct way to career preparation.

On the other hand, the researches of Kürtösi és Hetesi (2007) and Hetesi (2010) showed that graduated students that are in a favorable situation from the labour market point of view are not always satisfied with the services offered by their universities. This indicates that there is no positive relationship between the labour market success and the positive image of the institution.

According to Berács (2003) the entire higher education market can only be effective if submarkets (teachers, textbooks, technical and technological equipment, methods, software etc.) and related markets (e.g. effective capital markets can serve institutions and students to dispose of bottlenecks and make easier the diffusion of innovations) make a coherent interconnection with each other.

Several models – for example the economic models, the status attainment models, the combined models – were developed to evaluate human behaviour concerning higher education enrolment.

Many theorists (for example Fuller et al. 1982 and Schwartz 1985) and researchers developed economic models to analyze enrolment decisions to colleges or universities. According to their theory potential students make a cost and benefit comparison before their decision and the previously mentioned authors also take into consideration the individuals' tastes and preferences. Somewhat later Kotler and Fox (1995) made a more comprehensive version of this model. The *Status-attainment models*, as presented by Sewel and Shah in 1978, do not only see students as rationally deciding entities (as the economic models did) but also as decision determinants able to develop over a person's life (Vrontis et al. 2007). In this case, factors such as the parents' societal status may also determine the student's higher education performance.

The *combined models* comprise the advantage of the status-attainment models as well as the economic models and show the phases of the students' decision making process. These specified models differ from the general five-step model of the consumer decision making process: problem recognition, information search, evaluation of alternatives, purchase decision and post-purchase behaviour (Kotler and Keller 2006. 266) at a lesser or greater extent. To the most frequently cited combined models belong the *Jackson model* from 1982, the *Chapman model* from 1984 (presented in Vrontis et al. 2007), as well as the *Hanson and Litten model* (Hanson and Litten 1982). According to the student-oriented *Jackson model*, student's decision making process can be divided into three phases. The first phase is the preference phase

where academic achievements, family and societal context influence decisions. In the second (so-called exclusion) phase students make selections and rule out some of the higher education institutions with the help of economic factors (location, costs, academic quality). In the final (evaluation) phase a rating of the remained options can be observed. In the *Chapman model* two stages can be distinguished, the pre-search and the search phase. In the pre-search period socioeconomic factors such as family income affect decision and after that – in the search phase – the student looks for specific information about the higher education institutions he or she prefers. The *Hanson and Litten model* originally was also a three-step model. In the first step the desire to attend a postsecondary institution emerges and students decide to gain deeper knowledge about higher education. The second step is the exploratory stage, when students seek information and take potential institutions into consideration. In the last step students apply for the selected institutions. Litten (1982) expanded the model; the new five-step model is the following:

- Aspiration (student has an ambition for higher education);
- Search process;
- Information gathering;
- Sending application;
- Enrolment process.

According to the last mentioned model there are several factors that influence the decision process (Litten 1982):

- Background (for example parental income, parental education, gender);
 - Personal attributes (for example academic ability, class rank, self-image, personal values);
 - Secondary school characteristics (social composition, quality, curriculum);
 - Higher education institution characteristics (for example costs, size, programs, recruitment activities);
 - Influences (parents, peers, media, counselors, college officers, etc.).
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Material and method

The main aim of our research was to get a picture of the candidate's decision whether he or she is willing to continue the studies after the bachelor degree. If he or she is willing to continue, how he/she will choose an institution or a faculty. During the research we mapped the factors, the main decision points and the main advisors that may be significant during the institution choosing process. The research can be split into three parts. In order to explore the problems we first used secondary research, but because of the length limits of this article we will not explain its results. Based on the results of the secondary research, a wide-reaching primary research was carried out. The qualitative research was made in October 2012 when the first-year master's students were asked to answer ten short open questions and four focus group interviews were made. The main aim was to emphasize motivations and significant decision points. Based on the results of this exploratory research among the full-time first-year master's students and full-time last-year bachelor students, the questionnaires were filled out using the PAPI technique. The aim of the questionnaire technique was also to find decision points and to identify influencing factors. The main topics we touched in the questionnaires were the following: demographic data, information concerning intentions aiming further studies, expectations and attitudes, information gathering habits, main stations of the decision process and main factors that have influence on decision. From the returned 300 questionnaires, 127 could be evaluated. The stratified sampling was used and both the majors and the ratio of education forms served as basis. Therefore, our research cannot be considered representative. Based on the results of the research main decision making points, typical application modes and influencing factors that contribute to the application of the masters can be outlined. After coding the questionnaires the SPSS statistical software was used for data processing.

Results

In the first part of this section the decision-making process will be presented following the logic of the general buying decision-making

process (Kotler and Keller 2006) and by putting the stress on the motives of applying to the master's degree and the sequence of the different sub-decisions. In the second part the time horizon of these decisions and the different student segments will be shown.

The decision-making process

The first step is the problem recognition when the need towards a master's degree arises. Our first question was about the necessity of the master's degree: whether there is a *need of a master's degree on the labour market nowadays in Hungary*, or the type of qualifications needed for a good job. According to the results of the short interviews, the focus group interviews and the questionnaires there is no unequivocal answer to these questions. The responses to the interviews underline two points: an appropriate profession or a master's degree is needed for a good job. However, in the questionnaire research nearly 40 percent of the respondents think that the bachelor degree is enough. The master's degree is necessary only according to 31 percent of the bachelor respondents and 24 percent of the master's students. The following opinion was recorded several times: appropriate connections are more important than the degree.

The questionnaire research highlights that whereas the master's degree gives more knowledge, the Hungarian labour market does not value it sufficiently. This statement was said during the short interviews and the focus groups as well. Thus, it would be worth to make the employers understand the differences between the bachelor and the master's degrees and explain them what they can expect from an employee with a bachelor or a master's degree.

According to the answers collected from students through different research techniques the *main arguments for the master's degree* are the following:

- They can enhance their knowledge with studying another discipline or with deepening the bachelor knowledge.
 - They can reach better positions on the labour market or in a certain workplace hierarchy.
 - Life-long learning is necessary nowadays.
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- They would like to postpone taking on a job (they think they are too young and/or too inexperienced themselves).

The *main arguments against the master's degree* in accordance with our research:

- They have a fear of financial dependency; a master's degree means further costs without salary and students often cannot afford it and some of the students would like to be financially independent.

- They think that master education is not practical enough, so they would rather get practice in a workplace. Thus, the master's students step into the labour market with two years disadvantage.

- The labour market may not appreciate the master's degree. It may not worth more than the bachelor degree.

- Students have fear of being overqualified with the master's degree.

- Several students consider the master program too difficult.

- If somebody has a good job he or she does not risk it. He or she will not go further with the studies or she/he will at best pick a part time program (if it is compatible with the job).

Both the focus groups and the questionnaire research justified that depending on the time of the problem recognition students can be divided into three groups:

- Some of them plan in advance their higher education for five year. When they apply for the bachelor program they know that they will go further.

- The members of the second group realize during the bachelor program's 2nd or 3rd year that their bachelor knowledge is not enough, that is why they would like to go further.

- The third group makes the decision at the last minute, not much before the application deadline (for example because he or she cannot find a job with his/her bachelor degree).

In compliance with the short interviews and the focus groups, the students of the part time program can be mainly included in the 2nd and the 3rd groups.

After the problem recognition, students *search information* about the potential master's program. *Information sources* students use during the decision-making process:

- The websites of the institutions: they must be informative and colourful.

- Information days about the master's programs.

- Registrars departments.

- felvi.hu website and the admission guide book.

- Higher education rankings. Students do not expect the institution to be on the first place, but they attach importance to the fact that an institution is one of the leaders. This information is not decisive, but it has a confirming role.

- Personal sources: former and present master's students of the institution, professors of the institution, friends, and relatives. The parents have only a confirming role in the master's program choosing process.

Based on the results of the information search, students evaluate the gathered information and make *sub-decisions about the different conditions of master education*. In this phase we emphasize the sequence of the sub-decisions and the main considerations about the different conditions instead of the evaluation methods. The conclusion drawn from our research results are that students make the sub-decisions about the different conditions in the following order: first they choose the type of the training (full time or part time) and afterwards they decide on the institution and the faculty, but the order is not clear.

If we take into consideration the type of the training, it can be stated (based on the focus group discussions) that the respondent students value full time training more than part time training; not only because of the more valuable knowledge, but also because of the financial aspects. The questionnaire research shows that full time students accepted this statement more willingly (average: 3.88; variance: 1.29) than the part time students (average: 2.67; variance: 1.26). However, during the focus groups and the short interviews several students mentioned that part time training is easier than full time training. Some of them consider it an advantage; others a disadvantage. According to the results of the focus group interviews, students will choose part-time training if they want to study besides their job.

Concerning the choice of the institution and faculty there is no unequivocal answer. It seems that students generally come to decide upon these at the same time. There is an especially remarkable result, 90 percent of the bachelor students are loyal to the institution, so they can be considered an important basis of that institution's master's program. Their main motivation is the familiar atmosphere; they know the professors, the examinations, the processes, and the other students, so they can fulfill the requirements with less effort. On the other hand, the main motivations of the institution-leavers are the following: environmental change, new challenges, new knowledge, and new relationships. Throughout all research techniques the inquired students mentioned the following features in connection with the institution, so it can be presumed that an average student chooses institution based of these considerations:

- Reputation of the institution.
- Quality of the institution's degree.
- Effect of the institution's location:
 - Entertainment possibilities, events, etc.;
 - Part-time job possibilities; workplace of the part time students.
- Costs (state-founded places and tuition fee, living costs).
- Reputation of the professors.
- Personal experiences during the bachelor program.

According to the results of the focus groups we can divide the bachelor students into two groups depending on the time of *handing in the application form*:

- The first group members hand in the application form very early, because they are sure of their decision, and they have been preparing for the master's program for a long time.

- The members of the second group present the application form only at the last minute. It can be presumed that because of the rapidly changing regulation of higher education in Hungary, in 2012 more students took their the decision in the last minute.

Groups according to the time horizon

One of our research aims was to identify groups of respondents based on different variables and factors. Firstly we ran a factor and a

cluster analysis based on the attitude statements of the PAPI questionnaire. But neither factor analysis nor cluster analysis led to suitable results. The final factors became too general (e.g. reputation, price, quality) and did not help to describe the whole decision process, whereas the two cluster groups, the active and the passive groups, did not show significant differences. To make a distinction between the decision making processes of the respondents and to delineate the decision tree, we had to choose other data analysis techniques.

The descriptive statistics showed that the quartiles of the final decision were three, six and twelve months ($Q_1=3$, $Q_2=6$, $Q_3=12$) in the case of the MSc students and also in the case of the BA students. The frequencies of the mentioned duration were extremely high at one, two, six and twelve months. Based on these results we identified a new variable. With the help of this new variable the decision tree could be created for the different groups. There were three groups within the new variable:

- The 'conscious group': students who are willing to continue their studies on master level belong to this group. They make a decision typically one year earlier than the application deadline (minimum 9 months earlier before the application deadline, but most of the group members made the decision 12 months earlier).
- The 'ordinary decision makers': they make a decision around half year earlier before the application deadline (the decision is made 4-8 months earlier before the deadline, but most of them made it 6 months before it).
- The 'procrastinated decision makers': they make their decision maximum 3 months earlier before the deadline, but most of the group members made their decision 1 or 2 months earlier before the deadline.

In the whole sample the proportion of the 'conscious group' is 22.5%, the proportion of the 'ordinary decision makers' is 44%, and 33.5% of the respondents belong to the 'procrastinated decision makers'. In certain decision making phases and attitudes these three groups differ from each other, but in some cases they show similarities. The cross-table analysis showed significant deviation (based on the χ^2

test and Cramer-V with 95% confidence level⁴) in the case of the minimum necessary qualification, cons against MSc, willingness to continue their studies on master's level, influential factors of the decision making process and the attitudes. Before analyzing the decision making process we briefly characterize these groups.

The 'conscious group' is dominated by men. Within this group there is the highest proportion of full time students, which means that who chooses the full-time option, probably has been planning their studies more consciously and for a long while. In this group the proportion of those respondents who think that a skilled worker degree is sufficient for being successful in life is the highest. Many of the group members believe that a good job does not necessarily depend on qualification.

The group of 'ordinary decision makers' is the most balanced in terms of gender (women: 58%, men: 42%). The proportion of full time students is high and the proportion of 'rural' students (not living in Pécs) is also the highest in this group. 38% of the group members think that MSc degree is necessary for a suitable living standard (the highest proportion out of these three groups), but 39% suppose that the BA degree also could be appropriate.

The group of 'procrastinated decision makers' is dominated by women and the proportion of part-time students is the highest within this group. 48% of the group members suppose the BA degree represents a sufficient qualification level, but compared to the two other groups the proportion of other qualifications, OKJ and FSZ (education levels higher than high school but lower than BA) is also the highest within this group. The opinion of this group about the labour force market is the worst, because 42.5% of the group members (against 26.5% and 29.5% of other two groups, but this deviation is not significant) feel that, compared to the BA degree, the MSc degree is not

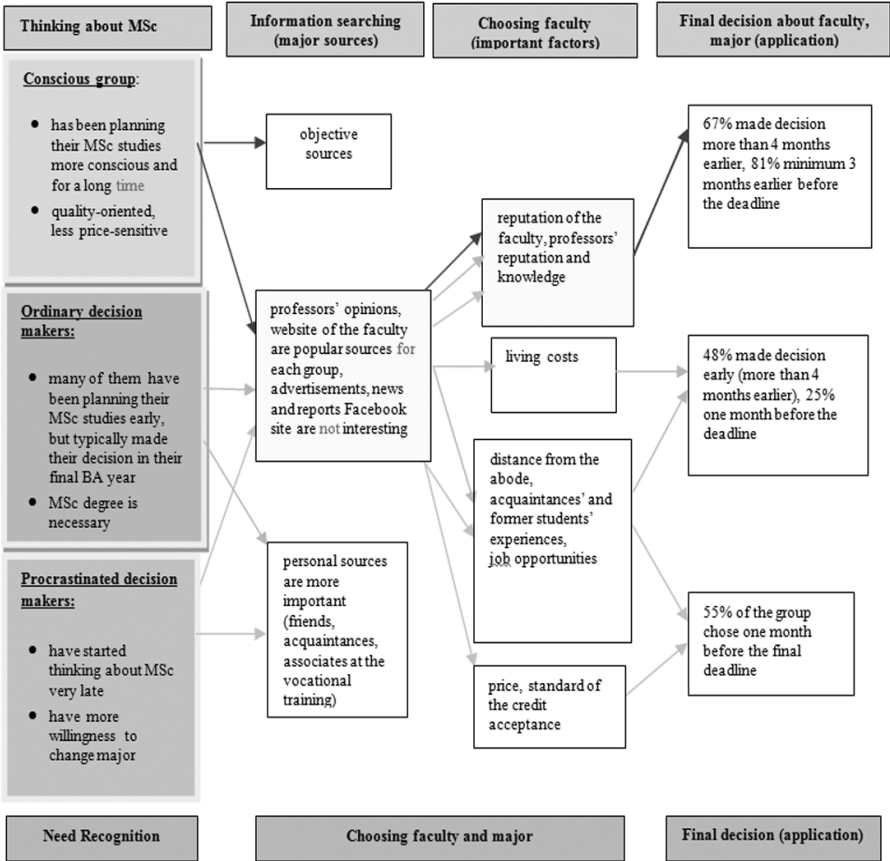
⁴ In some cases we diverged from the standard 95% confidence level and 5% significance level to better approach the differences between groups. The maximum significance level was 15%.

appropriately valued by the actors of the labour force market, and probably this opinion is the reason for their late decision.

According to these deviations the three groups' decision making process to set up the decision tree, which shows the correspondences and differences of the groups. Regarding the first step, the *problem recognition*; the biggest difference is that the conscious group had chosen the BA program because they knew they are going to continue their studies on master's level or in their BA year 1 or 2; the group has already decided about further studies by applying to MSc. The proportion of predestined MSc students was much lower among the 'ordinary decision makers' and the 'procrastinated decision makers'. The 'procrastinated decision makers' made a decision about the MSc only in their last BA year or later, so this group recognizes the problem typically 2-3 years later than the 'conscious group', as you can see in the final decision tree (Figure 1).

After the problem recognition, students gathered information about the potential master's programs. There were significant differences between the groups regarding the following sources of information: friends, acquaintances, associates at the vocational training. Personal information sources, like friends, acquaintances, associates at the vocational training have a greater importance for the 'ordinary decision makers' and for the 'procrastinated decision makers' than for the 'conscious group' that is rather looking for objective information sources. There are also similarities; the professors' opinions and the website of the faculty/university belong to the popular information sources for each group, while the advertisements of the faculty/university, the news and reports in the press and the Facebook site are not interesting. Personal information sources (acquaintances' and former students' experiences, opinions) have greater influence on procrastinated decision makers, than on the other two groups. The most important information sources are presented in the decision tree (Figure 1).

During the evaluation of the available alternatives we found that the *influential factors* also have different importance for the groups. There are significant deviations in the following factors: price of the



Source: own compilation

Figure 1. Decision process modeling

program, living costs in the city of the faculty, distance from the abode, standard of the credit acceptance, acquaintances' and former students' experiences, opinions and job opportunities in the town of the university/faculty. The conscious group is the less price-sensitive; they can be persuaded by rational, quality criteria. The factors connected with the costs are more important for the two other groups. The

distance from the abode and the job opportunities are serious influential factors for these groups. The ordinary decision makers also choose according to the living costs in the city of the faculty. For the procrastinated decision makers the price is the critical factor. But the standard of the credit acceptance is also taken into account by this group. The significant influential factors are included in the final model.

After choosing the decision requirements and collecting the necessary information *final decision making* should come. There was no significant deviation in the case of choosing major against faculty. There was only significant deviation in the case of willingness to change major. The two earlier decisive groups are less willing to change major, than the procrastinated decision makers, because nearly half of this group was thinking about following other major of their university/faculty. The conscious group makes this *final decision* (which university/faculty and major) very early, typically they know more than four months earlier before the application deadline which faculty and major to choose. Only half of the ordinary group made the decision early; 25% of the ordinary group knew which faculty and major to choose one month earlier before the deadline. The procrastinated decision makers did not just start thinking about application for the MSc later than the other two groups, but they also made their decision very late, half of the group chose faculty and major just one month before the final deadline.

Analyzing the answers of these three groups according to the decision making process we can set up the decision tree (Figure 1) and with it we are able to model major routes to MSc.

Conclusions

Nowadays there is an increased interest towards the university enrolment; as our literature review also showed this field becomes more and more important. A reason can be that universities in Hungary, especially economic faculties, are faced with the fact that previous enrolment practices do not result in enough number of applicants. This can be due partly to demographic trends and partly to education policy

changes. These demographic trends are relevant not only to bachelor but to master's students as well. Our research had two main aims: to reveal the cons against master's program and to identify higher education motivators at master's level. Based on the results the most important cons against the MSc are: the inappropriate valuation of the master's degree by the actors of the labour force market compared to the BA degree, the preference for work experience and the high price of the program. These results are very important because public funding is not guaranteed for masters programs. Currently this problem emerges in the case of 'procrastinated decision makers', the group is less willing to continue their studies on master's level. Based on the results of our research this group has many members; therefore it represents a real and relevant problem. The results imply that there will be more and more students with BA degree on the labour market, because many of them do not want to continue their studies. It could be a big problem in the following years because there will be fewer professionals with strategic thinking and the number of candidates for PhD programmes and of the scientific community will also decrease. This could become a problem of higher education, because the very talented, but less conscious students may enter the labour market instead of following a scientific carrier.

Still, faculties can have an effect on the decision making process of the 'conscious group' and 'ordinary decision markers', but in the future they will need more efficient and differentiated communication. As a consequence, institutions and faculties that would like to ensure their presence on the market have to be proactive and they have to make steps to face the possible threats and challenges.

References

Berács, J. 2003. A magyar felsőoktatás exportképessége. *Magyar Felsőoktatás* 4-5-6, 30-33.

Berács, J. 2008. Tudásexport a felsőoktatásban: egy hierarchikus megközelítés. *Competitio* 2, 35-48.

Carlson, P. M.–Fleisher, M. S. 2002. Shifting realities in higher

education: today's business model threatens our academic excellence. *International Journal of Public Administration* 25(9-10), 1097-1111.

Casidy, R. 2014. The role of perceived market orientation in the higher education sector, *Australian Marketing Journal* 22(2), 155/163.

Cheslock, J. J. 2005. Differences between public and private institutions of higher education in the enrollments of transfer students. *Economics of Education Review* 24(3), 263-274.

Dirks, L. 1998. *Higher education in market theory*, <http://webhost.bridgew.edu/adirks/ald/papers/mktheor.htm>, downloaded: 2013.02.24.

Drummond, G. 2004. Consumer confusion: reduction strategies in higher education. *International Journal of Educational Management* 18(5), 317-323.

Eckel, P. 2007. Redefining competition constructively: the challenge of privatization, competition and market-based state policy in the United States. *Higher Education Management and Policy* 19(1), 1-17.

Filip, A. 2012. Marketing theory applicability in higher education. *Procedia – Social and Behavioral Sciences* 46, 912-916.

Fuller, W. C.–Manski, C. F.–Wise, D. A. 1982. New evidence on the economic determinants of postsecondary schooling choices. *Journal of Human Resources* 17, 477-498.

Hanson, K. H.–Litten, L. H. 1982. Mapping the road to academe: a review of research on women, men, and the college-selection process. In: Perun, P. J. (ed.) *The undergraduate woman: issues in educational equity*. Lexington, Mass: Lexington Books, 73-98.

Hetesi, E. 2010. A marketing információs rendszer és a felsőoktatási elégedettségi kutatások módszertani problémái. In: Törőcsik, M.–Kuráth, G. (eds.) *Egyetemi marketing, marketing a felsőoktatásban*. Pécs: PTE, 103-122.

Katona, T. 2002. *Mennyiség vagy minőség – Gondok a felsőoktatásban*. Szeged: JATE Press.

Kotler, P.–Fox, K. 1995. *Strategic marketing for educational institutions*. Englewood Cliffs, NJ: Prentice-Hall.

Kotler, P.–Keller, K. L. 2006. *Marketingmenedzsment*, Budapest: Akadémiai Kiadó.

Kuráth, G. 2007. *A beiskolázási marketing szerepe a hazai felsőoktatási intézmények vonzerőfejlesztésében*. Doktori értekezés. Pécs: PTE.

Kürtösi, Zs.–Hetesi, E. 2007. Mit ér a diploma, ha magyar. *Marketing & Menedzsment* 41(4-5), 24-31.

Leslie, L.–Brinkman, P. 1988. *The economic value of higher education*. New York: Macmillan.

Litten, L. H. 1982. Different strokes in the applicant pool: Some refinements in a model of student choice. *Journal of Higher Education* 53(4), 383-402.

Pascarella, E.–Terenzini, P. 1991. *How college affects students*. San Francisco: Jossey-Bass.

Pavluska, V. 2009. A marketingelmélet új irányai a felsőoktatási marketing megalapozásában. In: Törőcsik M.–Kuráth, G. (eds.) *Egyetemi marketing, marketing a felsőoktatásban*. Pécs: PTE, 69-86.

Schwartz, J. B. 1985. Student financial aid and the college enrolment decision: the effects of public and private grants and interest subsidies. *Economic Education Review* 4, 129-44.

Vrontis, D.–Thrassou, A.–Melanthiou, Y. 2007. A contemporary higher education student-choice model for developed countries. *Journal of Business Research* 60(9), 979-989.
