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Motivations for further education at higher education in Hungary in face of  
the changing youth and market-oriented higher education

Theses of Doctoral Dissertation

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## **Table of Contents**

Background and significance of the research .....	3
The aim of the dissertation.....	7
The hypotheses of the research.....	8
Research methodology .....	13
Research findings, the verification of the hypotheses .....	17
The summary of the new scientific results .....	20
Publications of the author .....	25
Participation in conferences of the author .....	29
Bibliography of the thesis .....	32

## **Background and significance of the research**

Due to the technological development of transportation, informatics and telecommunications in the past century, globalizing processes have basically changed the economic and social relations of the world by the 21<sup>st</sup> century. As a result of the exponentially increasing development, knowledge economy has emerged and hereon the knowledge-based society has emerged too. The importance of knowledge, and thus the role of education has been up valued in the world. Today we can see that existing professions transform and in the meantime new ones are formed. As a result of the fast development it can happen that some certain knowledge has become obsolete even before the education finishes. The consequence of these is the tendency of ‘lifelong-learning’.

The transition to knowledge economy caused radical changes in higher education. Martin Trow (1974; 2000) had analysed the problem of transition to mass higher education, and came to the conclusion that the end of elite higher education era can be determined by exceeding the participation rate of 15%. After that, we can talk about a general era since the system of higher education transforms in case of a participation rate higher than this. In the era of mass higher education, the conditions for the entry to higher education, the selection, the curricula, the form and methods of education, the forms of interrogation and the nature of the qualification available significantly change. But the motivations of students, the recruitment and socialization of lecturers, the standards and their enforcement, the moral questions, the student services, the support of job seeking, financing, institutional governance and administration, the relations with secondary education, and the pieces of research serving education will change as well. According to Ildikó Hrubos (2014) this process, namely the expansion of higher education had already started in the United States in the 1950s, in Europe it had started approximately a decade later, while in Hungary it started only in the period after the regime change, with a significant lag.

While the human resource demands of knowledge economy significantly changed, higher education hardly changed in Hungary and in the other countries of Europe as well to be able to meet the new types of demands more effectively. The hierarchical structure of the system and the tradition-based organizational culture of institutions do not enable a fast reaction to changes. Having recognized the risk of lagging behind, the leaders of European countries urged immediate changes. The Lisbon Strategy of the European Union and the Bologna Process declared by the Ministers of Education of European countries launched unprecedented reforms in education across Europe. Due to the EU and the European Intergovernmental Agreements,

these reforms also reached Hungary where higher education institutions have faced increasing challenges despite their growing specific weight.

At the beginning of the 1990s the expansion of higher education also started in Hungary. New colleges and universities were established, the existing institutions extended their training supplies, and off-site trainings courses were launched and the separations of which several new institutions were established. The process had created the opportunity of almost unlimited entry by the end of the decade. (Hrubos, 2014) The Act of 1993 on Higher Education introduced the system of normative financing, which made the main source of income of institutions dependent on the number of students, thus each institution is interested in enrol as many students as they can. The expenditures of institutions are seen fixed costs in the short run, and it is hard to draw on a part of them even in the medium run (e.g. the maintenance of buildings, the salary of public servants with permanent status), while incomes depend on the number of enrolled students to the greatest extent. Therefore, all these introduced the term of competition to domestic higher education.

However, due to the current demographical processes, the number of young age groups, who serve as a basis for higher education, has decreased in the regions including developed countries. It is not different in Hungary either: in 1991, the number of population aged 17 years was slightly more than 180 thousand, while by the beginning of the 2010s it decreased to 95 thousand. (Polónyi, 2011) By the beginning of the 2000s the enrolment reserves of those layers who were previously excluded from higher education had already been depleted, thus quantitative expansion reached its limits, which intensified this competition.

The Act of 2005 on Higher Education resulted new levels of education and new entrance system. Besides aging society and the ever-decreasing number of youngsters who mean the bases for higher education, the radical change of the regulatory environment brought about the prominence of ‘business-like’ operation of institutions. In the meantime, the disappearance of labour markets’ national borders resulted international competition. One of the main objectives of the Bologna Process would have been the harmonization of higher education and international interoperability. Partly as a result of the domestic break in the process, the internationalization of our higher education failed, albeit in developing countries, due to the population boom and the widening middle class, there is a huge demand for internationally relevant courses. The intensification of domestic competition was further boosted by the fact that the system was incapable of opening appropriately to developing countries that have excessive training capacities. It was unable to get over focusing on domestic labour and training market and take advantage of the globalization of higher education.

In the competition formed in the past decade higher education institutions fight for students, state aids and other sources. As a consequence of the decrease in the number of youngsters, institutional closures and mergers, the reduction of state aid, and the limitation of the numbers of potentially admitted students are on the tapis in education policy.

Due to the fact that there is a fight among higher education institutions for applicants and available sources, the role of marketing has also been up valued. Each institution had to re-evaluate their situation and make their operation more conscious. Strategic approach has become a part of everyday life in higher education, and institutions had to learn to communicate consciously towards their environment. As a result of this, each institution was forced to apply such marketing tools which previously had been used only by profit-oriented companies in the business sphere to reach their aims.

Consequently, the role of conscious strategic planning and marketing management tools previously used by the business sphere is seriously up valued. Communication alone can cause successes only in the short run, thus institutions are forced to consciously build their relations with their environment, and to pay attention to their previous, current and potential students.

Higher education institutions need information about their previous, current and potential future students to make a broad strategic plan. Some elements of this can also be found in domestic practice.

As for the graduated students, their integration to labour market, their future career is an important indicator of the operation of higher education systems. For the initiation of OECD (Organisation for Economic Co-operation and Development) several international career monitoring programs took place. Although in Hungary career monitoring is not without history, there have been surveys in an institutionalized form since 2005, and several domestic researchers have published in this topic. (Fáбри, 2010; Kiss, 2011; Horváth et al 2009; Tamándl, 2011) In accordance with career monitoring systems, surveys about students' motivations also appeared in domestic practice.

National Youth Strategy defined the tasks regarding youth policy between 2009 and 2024 by focusing on the needs of the youth. (NIS, 2009) Recently broad pieces of youth research have been published (Somlai 2010; Domokos, 2013; Gazsó 2013; Kitta, 2013; Nagy 2013; Nyüsti 2013). Domestic literature has dealt with career choice in Hungarian education system since the 1980s (Zakar, 1988; Lannert 2000; 2004; 2008; Andor-Liskó, 1999; Halász, 2001; Juhász et al, 2010). Higher education marketing is also not without history in domestic literature (Kuráth, 2007; 2010; Kozák, 2010; Kuráth-Törőcsik, 2011; Lukács, 2012). These, however, mainly focus on one special field. National pieces of research revealing the course and

institution choice of secondary education students, as well as their motivations and fears are still missing.

Besides, several pieces of research (Goddard, 1999; Etzkowitz, 2000; Hudson, 2006; Filep, 2008; Rechnitzer, 2009; Kovács, 2012) shed light on the influence of higher education institutions on their regions besides their role in national economy or in some cases their role beyond that. While the importance of regional contribution of higher education institutions has increased recently, most institutions strive for national and international educational and research activities. While the most important role of smaller community colleges – by providing human capital – is to support local development, to meet the demands of regional industry by cooperating with regional enterprises and sectors, supporting this way the maintenance of social infrastructure of the area and it also contributes to local cultural life in cooperation with social communities and the environment. Yet it is typically these institutions that have a national draining effect in several cases and operate in national, what is more, in international competition. (OECD, 2009a) The national effect of larger universities of sciences is obvious, however, by now their competitive position in international environment has also been indisputable as it is enough to think about such educational fields with international enrolment like medical training.

However, not only institutions affect their own regions, but the given economic area also limits the opportunities of the given higher education institution, providing this way a kind of operation area for the institutions. All these affect the enrolment opportunities of the given institution as well.

However, I think that for the planning and transacting of a conscious enrolment activity, it is not enough to use secondary data, but the thorough knowledge of the agglomeration as well as its constant analysis and evaluation are also inevitable for each higher education institution.

The aim of the present dissertation is to reveal and introduce the career choice motivations of domestic secondary education students, their preferences regarding the choice of courses and institutions, and the most important information sources needed for their decisions. Higher education institutions are only able to adapt appropriately to their own competitive environment if they have the above pieces of information. A

During my empirical research I deal with the main enrolment area of Széchenyi István University in Győr. Although the university attracts students from the whole country, its attraction mainly concentrates in two planning-statistic regions of NUTS 2 levels, namely West-Transdanubia and North-Transdanubia region. During the research, I conducted a questionnaire survey in the secondary education institutions of the area among school-leaver students who

are about to apply to a higher education institution. I conducted the cross-sectional research including six counties in two phases; first I aimed at questioning 2000 students in 2012, and I repeated the survey in 2015 and this time the aim was to question 800 students. During the survey, I also analysed the influence of the economic and social structures of the area on career choice.

I set up seven hypotheses in my dissertation. One refers to the general marketing theoretical approach of career choice, while the rest, built on the empirical research, make statements regarding the further education preferences of students, their ideas about their future and the opinion-formers who affect their ideas, and the enrolment attraction area of higher education institutions.

## **The aim of the dissertation**

After I had elaborated the relevant literature, it was evident how higher education transforms. The domestic system faces several challenges as a consequence of which marketization processes start, basic institutional structures and operation models change, in which the role of marketing is up valued. The optimization of services is of importance, and *inter alia* research about the students' motivations is needed for that (e.g. Tamándl et al, 2010), and important pieces of information can be obtained from career monitoring systems (Horváth T. et al, 2009; Tamándl et al, 2014) in the planning of processes.

However, it is a serious problem that marketing activity has not stepped to a strategic level in higher education, thus marketing experts are not involved in decision-preparation, and there is no real marketing strategy. Substantive progress can be mostly seen in the development of communication and the establishment of alumni systems. (Kuráth – Töröcsik, 2011)

Besides motivational analyses and career monitoring systems, the analyses of the career choice motivations of young people in admission to higher education should be integrated for a broad strategic planning. This is the third basis of planning's information inputs.

Several surveys examine this target group from one point of view (GfK, 2008; GfK, 2015; Deloitte, 2015), but there are no complex motivational surveys to reveal career choice motivations as a whole. However, generational change, the transformation of the education system and the changing demands of labour market all justify the research.

The aim of the dissertation is to reveal and introduce the career choice motivations of domestic secondary school students, with a special emphasis on the students studying in the industrial region of Győr, by analysing the effects of the region's economic and social structures on career choice motivations.

## **The hypotheses of the research**

**H1: The decision on further education in higher education – within this the choice of course and institution – can be interpreted as a consumer decision to which the consumer buying behaviour model can be adapted. (Theoretical hypothesis)**

The process of consumer decision has been in the centre of consumer behaviour surveys for a long time. Several models were set up, Amstutz set up the model of consumer decision making process (Amstutz, 1967), Hawkins, Best and Coney analyzed the relation between the process of buying and the choice of shops (Hawkins et al 1986), while divided the consumer decision into five basic stages (Mowen, 1988). In his classic model these stages are as follows: (1) need recognition, (2) search for information, (3) evaluation of alternatives, (4) purchase decision and (5) post-purchase evaluation. Kottler and Keller shed light on that the consumer does not always go through all of these stages during decision-making as e.g. in case of an impulse buying the process shortens, but in case of more complex decisions it may become more complex (Kottler-Keller, 2006).

Career choice and within this further education in higher education is an important decision in the life of young people. Although the pace of technological development has accelerated in knowledge economy and this induced the tendency of lifelong-learning in knowledge society as a result of which a young person choosing a profession now will change profession more times in their life, this decision can have a determining effect on the future walk of life of young people. The career choice decision-making process may take more years, and besides individual search for information, it is also affected by some other factors like the occupation and the highest education of the parents, the career orientation of the family, and opinion-formers from secondary and elementary school like teachers, classmates and friends. Thus, regarding this decision classic decision-making model needs completion, and further steps need to be inserted.

**H2: In case of those who do not want to continue their studies in higher education besides the non-compliance of the requirements, other motivations like moving abroad as soon as possible, starting a family early, or better earning opportunities for skilled workers also appear as reasons for this decision.**

A paradox in connection with knowledge is that traditional skilled knowledge is devaluated, but the time spent on education rises. Lifelong-learning becomes generally characteristic, and the expansion of school system is going to continue. The importance of electronic media is up valued in education as well. Unemployed career entrants mainly consist of young people with

low level of education or unskilled ones. It is a generally recognized statement that young people having higher education have better opportunities in labour market. (Somlai, 2010).

The past decades have seen the expansion of higher education, and it is a general phenomenon in the developed countries of Western-Europe. Between 1998 and 2007 the number of students studying at higher education increased by one and a half times in the EU countries. In Hungary, the expansion of higher education got under way seriously in the first half of the 1990s, which was proved by the increasing number of applicants and the admitted students as well as that of higher education institutions. Consequently, by 2010 Hungary had reached the level of developed Western-European countries from the viewpoint of the rate of higher education students. (Fábri I., 2010)

It coincides with the Europe 2020's strategic objectives which *inter alia* includes the increase of the rate of those 30-34 year olds who have higher education degree to 40%. Within this Hungary undertook to raise the rate of those having higher education degree to 30,3% by 2020. (European Commission, 2012a; Eurostat, 2015).

Career choice has several pitfalls out of which the most common is the lack of career choice maturity. The students who do not possess career choice maturity by the appropriate time cause a lot of problems, because due to this lack, they are not able to make well-based and well-thought decisions or they start off in the wrong decision direction. (Zakar, 1988)

However, it shows up well that the increasing rate of those participating in higher education does not mean complete further education even among future strategic efforts, as it does not appear in any of the objectives. A part of the students is not suited for further education in higher education due to their scholastic records and abilities. However, besides this, supposedly there are students who are motivated by other factors like working as soon as possible, starting a family, moving abroad, or just simply the better earning opportunities for skilled workers.

### **H3: Determinants of career choice of secondary school students: parenting directions, the career orientation of the family, and the working opportunities provided by the course.**

Since civil society replaced orderly society, school has been the way to different types of advantages in life. Children can hope for better working conditions, higher salary and social appreciation through better education. In most cases, it is the parents' aspirations that determine the educational level to be achieved, as parents want their children to have either the same social status as they have or even a better one. The aim of the parents with education is to provide better life chances for their children so that they could have the highest possible position in

social hierarchy. Education aspirations of parents correlate with their own education and their life experiences regarding ‘prosperity’ in life. (Halász, 2001)

Career choice is a big opportunity for the young generation to express their demands and efforts which actually mean the content framework of self-fulfilment ideas of young people. From the individual’s side, it supposes the optimal use of personality values, while from a social viewpoint it requires the effective and active integration to labour division and the appropriate adaptation to working environment (personal and material conditions). (Zakar, 1988.)

Youth life stage nowadays takes longer than decades earlier, however, in the meantime, uncertainty also became more intense. Young people do not plan for long-term, and they need great freedom of movement to reach their direct aims. Based on consumption statistics, they become increasingly important market target group. Young people of the present are strongly characterized by individualism, so career plans are in the first place in their value system (instead of the former family life). (Somlai, 2010)

Therefore, an important question of the research is that to what extent employment opportunities are taken into consideration regarding career choice and how conscious the students are regarding this question.

**H4: When selecting the institution, applicants rather choose a region that provides opportunity for settling down and employment.**

Higher education has become a strategically important resource in knowledge economy. Institutions facilitate the development of their region, attract students and lecturers there, extend human capital, create jobs, order from the region’s suppliers, bind tender sources, while they convey cultural values, build community and serve the development of their region. (Hudson, 2006)

Besides the level of national economy, higher education institutions play a central role in the reproduction and adaptation of human resources, and the production of social capital at regional level too, thus they have increasing importance among regional actors. In knowledge economy education is a strategic resource of key importance to achieve economic success by human capital. Therefore, there is a growing pressure on regions so that they could become learning and knowledge-producing communities who focus on constant development, creating new ideas, organizational learning and knowledge transfer supporting this way regional development and wealth. All of these mean that a more prominent role in strengthening economic growth has to be attributed to higher education institutions as the centres of

knowledge both at national and regional level. Demands have moved towards exploitable knowledge and the promotion of its dissemination. (Forman-Fábián 2008)

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Thus, there is a reason to believe that during the selection of institution, the selection of the region is also a determining factor for students.

**H5: Among Hungarian higher education institutions, the institutions of the capital play a stressed role as they are situated in the economically most developed region of the country, thus they can attract students from North-Transdanubia region to Budapest due to independent life, better material conditions and the higher supply of education.**

Regional division and the role of the capital strongly characterize Hungarian higher education enrolment agglomerations. Besides Budapest, the agglomeration of the domestic traditional universities of sciences is significant and these universities mainly attract the students from surrounding settlements: Debrecen, Pécs, Szeged, Miskolc, Győr. These settlements, furthermore, are able to keep the graduated students in place. (Teperics – Dorogi, 2014)

The character of the institution and the specialization of the course have a great impact on the formation and the transformation of agglomerations and the emergence of spatial effects. General courses – economist, teacher, and lawyer – which mobilize large masses have well-delineated agglomerations which cover the already mentioned Northwest-Hungarian region. According to Rechnitzer-Smahó (2007), it can be observed that institutional agglomerations insisted to areas of 80-100 km in the first half of the 2000s and there is no sharp boundary between the agglomerations of each course as overlaps and perversions constantly change.

In case of the special, unique courses of institutions (courses of forest engineer, woodworking engineer, performing arts, teacher – music teacher, special engineer-mechatronic, vehicle engineer, logistics engineer) regional impacts do not prevail. We can observe traditional features in these courses, as a result of which they enroll students from the whole country. The third phenomenon is the attraction from outside the borders, based on which the interest of Hungarians from Slovakia towards Hungarian courses is increasing. (Rechnitzer-Smahó, 2007; Tamándl, 2009)

The traditional central role and the prevalence of Budapest is the result of an organic historic development of the country's economic and social structure and its administrative system. It is a fact that this central role prevails in higher education too as almost half of the institutions operate in Budapest, and 40% of higher education students study in the capital. (Hrubos, 2005)

All of these justify that the draining effect of the capital prevails in career choice and higher education enrolment.

**H6: Within the Northern part of Transdanubia, the economically developed Győr-Moson-Sopron County is a more attractive direction for further education for secondary school students due to better employment prospects in the future and higher salaries, thus it has a draining effect in the region.**

Three counties – Győr-Moson-Sopron, Vas and Zala – belong to the West-Transdanubia planning-statistical region which covers the 12,21% of the country's territory, and based on its population it is the second smallest region of the country as 9,95% of the population live in this region. Yet, this is the most dynamically developing region of the country. After the regime change, the border location which had impeded development so far became an advantage of the region. As a result of the opening of borders, tourism started up and investments rose. The comparative advantage of the region is provided by industry (mainly machine and vehicle industry), which was recognized and exploited in time by multinational companies. The area produces more than 10% of national GDP, while per capita GDP far exceeds the national average. Foreign direct investment resulted boom, which resulted a rise in per capita GDP, a large-scale job creation, the multiplicative effect of salaries, the strengthening of know-how transfer and R&D cooperations, and a rise in local business tax. (Tamándl, 2014)

In West-Transdanubia region two universities and the seat of a college can be found. Two institutions (Széchenyi István University, Theological College of Győr) operate with a seat in Győr and one with a seat in Sopron (University of West-Hungary). Besides these institutions, several institutions with seats outside the region maintain faculties, institutions or training place in the three counties with which they ensure their multiple training palettes. From West-Transdanubia region 32,91 thousand students study in higher education in a certain form, and nearly 1300 lecturers work in higher education. (Tamándl, 2014)

Central-Transdanubia region also belongs to the analysed area; its higher education is traditional and its newly-founded higher education institutions successfully reacted to the transformation of higher education market as they barely had two and a half thousand students

at the beginning of the 1990s, but the number of students has risen to more than 27 thousand recently. Thus, in most disciplines local higher education institutions are able to meet the specialists' supply of the region's economy. (KSH, 2009)

Thus, the assumption that more students come to study in economically more developed regions in hopes of better employment opportunities and a higher salary seems justified.

**H7: At the time of the decision about admission to higher education, secondary school students do not have realistic career image as their ideas about the years after graduation do not coincide with real opportunities. They have special ideas about the form of work, the place of settlement, and the expected income.**

Several international and domestic authors deal with the members of the so-called 'Generation Y' who were born at the end of the 1980s and at the beginning of the 1990s (Parment, 2008; Parment 2013; Williams – Page, 2011; Tari, 2010; Baranyi – Komlósi, 2015), however, today's higher education entrants are the members of 'Generation Z'. Several domestic surveys pointed out that the members of the new generation differently relate to work and they evaluate the optimal balance of work and free time in a different way (GfK, 2008; Deloitte 2013; Deloitte, 2015; GfK 2015). All of these surveys came to the conclusion that students have a wage demand far from reality and they are too optimistic regarding their employment opportunities both in secondary education and in higher education. According to the surveys of Deloitte (2013, 2015), higher education institutions should prepare their students better for the challenges of the world of work and the process of job seeking.

The question is whether the secondary school students' ideas that are far from reality and labour market can also be identified in an area like the industrial area of Győr, where the intensive presence of economic actors may modulate the picture, and where education has more relations with economic sphere.

## **Research methodology**

In case of the survey of 2012, the aim of the research was to measure the then demands of the target group and to use the obtained information immediately. Therefore, I chose one time cross-sectional research as research method. This method is based on a sample which was taken once from the elements of the population. I conducted the research again in 2015 to check the impact of processes in higher education on the motivations for further education. Thus, after double sampling it was possible to conduct time series analysis, but only limitedly. The primary

research is of quantitative type, which aims at numeric generalization of mass-type phenomenon.

To get the necessary data I used a questionnaire the filling out of which took maximum 20 minutes, and students filled it out independently at the school under supervision. The questionnaire is divided into parts in accordance with the objectives. I aimed at using closed, mainly scale-type questions in the questionnaire.

In case of the sampling of 2012 I used quota sampling so that the sample could better represent the rate of education agglomeration of the industrial area of Győr; and the control feature was geographical location based on the enrolment data of Széchenyi István University according to the following rates:

The sample of secondary school students:

- 20% of the students derive from the secondary schools of Győr,
- 15% of them derive from other secondary schools of Győr-Moson Sopron County,
- 15% of them derive from the secondary schools of Vas County,
- 15% of them derive from the secondary schools of Zala County,
- 15% of them derive from the secondary schools of Komárom-Esztergom County,
- 10% of them derive from the secondary schools of Veszprém County,
- 10% of them derive from the secondary schools Fejér County.

During the selection of the 31 institutions of the sample I took into consideration all the secondary schools in the area. Complete secondary school database consists of those institutions that at the time of the survey took up secondary education finishing with school leaving exam and started secondary class within the frames of such training in the academic year of 2007/2008. Sampling from the database was random after matching the above quotas.

Although from a statistical viewpoint a sample of 1000 elements is enough in case of similar surveys to eliminate statistical error, I aimed the double so a sample of 2000 elements was the target. In the phase of data recording and evaluation, after data cleaning, weighting by territorial proportions 1731 questionnaires were included in the sample. However, sampling cannot be considered representative considering all of its elements.

The questionnaire consisted of four main parts.

1. The measurement of preferences regarding further education and career choice:
  - a. the identification of information sources and affecting factors
  - b. the measurement of attitudes regarding training areas

- c. the identification and the measurement of the power of information sources regarding further education in higher education, the selection of course and institution.
- 2. The measurement of the assessment of Széchenyi István University and that of other determining institutions of the region.
- 3. The measurement of attitudes toward Széchenyi István University with regard to the type of the education and the courses.
- 4. Demographic questions to identify the target group.

The types of questions used in the questionnaire: measuring agreement with statements regarding attitudes and preferences in a 5-point, not-compelling Likert-type scale in a tabular format per question. Due to the nature of the evaluation of education, students easily understand and apply 5-point scales, and there is also an opportunity for indicating neutral answer by providing mean value. In case of some questions I applied rating questions. The questionnaire contains altogether 32 simple and complex questions. The survey can be seen in Appendix 1.

Filling out was anonymous, therefore I did not enable refusal to reply, only in case of the most intimate demographic questions – like the highest education of the respondents' parents or the subjective evaluation of the family's financial status – it was possible to indicate the discrete 'I don't know' answer. That's why I did not use compelling scale in case of questions regarding attitudes, and thus I enabled the respondents to reply neutrally if they cannot evaluate the given question.

Sampling took place between 1 October 2012 and 24 February 2012, adapting to the deadline for applying for higher education. The questionnaire was available and could be filled out online. The informatics system contained several assurances so that we could avoid faulty and incomplete questionnaires. Secondary school students filled out the questionnaire in the computer room of the school during the lesson in the presence of their teachers, in most cases their form teachers, together with a discussion about and preparation for further education and career orientation. Students could only fill out the questionnaire if they signed in the online interface with a login name generated from the OM code of the institution which we had provided to the institutions participating in the survey. This way we could ensure that only the target group filled out the questionnaire, and not a person who accidentally finds the questionnaire on internet. After the identification of the institution, the first question was whether the students plan to continue their studies in higher education in the future. Those who answered 'yes' received the entire questionnaire. Those who answered 'no' received a

shortened questionnaire mainly focusing on secondary studies and demographic data, complemented with a series of questions about the motivations for not continuing the studies in higher education.

I elaborated the data with the help of SPSS mathematical-statistical program. During coding, I took care to separate the questionnaires of those who want to study further and of those who do not want to do so. I elaborated the questions referring to both groups together, while I analysed only the purified data series in case of questions referring to either one or the other group.

During the survey of 2015 the questionnaire and the recording method were exactly the same as the ones used in the survey of 2012, but because this was the control sample applied for time series analyses I worked with a lower number of item numbers. After the control and the cleaning of the database 606 students were included in the sample. Territorial propositions did not follow the ones that were applied in case of the survey of 2012, as mainly students from Győr or from around Győr were included in the sample, thus territorial questions can be limitedly interpreted in case of certain analyses on the sample of 2015.

The question of the present research is to reveal and introduce the career choice motivations of domestic secondary school students, with a special emphasis on the students studying in the industrial region of Győr, by analysing the effects of the region's economic and social structures on career choice motivations.

Research questions are partly descriptive; their aim is to identify the followings in case of the students of the region:

- their preferences regarding further education,
- their demands regarding the selection of course,
- the way of getting information about admission process,
- the way of getting information about each institution,
- the factors to be taken into consideration during their decision, with a special emphasis on
  - regional and
  - economic factors,
  - future career expectations,
  - and institutional aspects,
- their attitude towards Széchenyi István University.

The other part of research questions is designated to analyse the important correlations regarding career choice motivations:

- How the region's economic and social structures affect career choice motivations?
  - What are the factors that affect the choice of the training area?
  - Based on what students choose the institution?
  - Can a decision-making model regarding career choice be set up?
- Is the region's education supply in accordance with labour market demand?

## **Research findings, the verification of the hypotheses**

At the beginning of my thesis I drew up seven hypotheses for the verification of which I aimed at knowing and interpreting the relevant literature as well as revealing and interpreting relating secondary data, and I also conducted two primary surveys with large sample. During the first survey, I had the opportunity to work with a larger sample size, besides considering the territorial proportions of the analysed region better. In case of the second, repeated survey, although more students from Győr and its area were included in the sample and the sample size was less than in case of the previous one, I got almost the same results with regard to the majority of the questions, which proved the well-foundedness of the research method on the one hand, and on the other that students' career choice motivations and their criteria system do not change significantly in such a short time, after a few years.

**H1:** From a market viewpoint, higher education can be characterized with a classic market model, where students mean the demand for higher education courses and higher education institutions mean the supply. Nevertheless, both the demand and the supply side come up in a differentiated way, the financing of the provided service is divided (state – student – the family of the student) as well as the interaction between the institution and the student as besides purely market regulators, state comes up from the supply side and the family comes up from the demand side.

Consumer behaviour analyses illustrate the consumer decision with the help of different models in marketing. The most commonly accepted consumer decision model of Kotler-Keller (2006) can be adapted to career choice process. Compared to the buying process of a traditional product or service the biggest difference lies in the time span of each course. In connection with the higher education admission decision, orientation towards a career often begins before the secondary school starts, thus the stage of search for information may as well goes beyond the secondary school years, but it is mostly up valued at the time of each decision (the selection of

secondary school, the selection of the specialization, optional and preparatory lessons, application for school leaving exam, and the deadline for the application for higher education.) Similarly, the feedback after buying may extend to the time of labour market integration, and not only to the years spent in higher education.

Therefore, decision regarding career choice can be perceived as a consumer decision and the models of consumer behaviour can be interpreted to it with appropriate adaptations, consequently I consider H1 hypothesis to have been accepted.

**H2:** It is not probable that compared to the rate of nowadays a significantly higher rate of students enter higher education even with the new types of labour market needs of knowledge economy and the new structures of knowledge society. Thus, it will be an important question why those who do not plan further education in higher education decide so. As a result of the primary research of 2012 and 2015 it unanimously turned out that those who do not plan further education in higher education do not decide so only because of their unsuitability or fearing of being unsuitable. Cluster analyses conducted based on attitude analysis unanimously showed that besides this group, there is another group of those who expect better employment opportunities and better salary by possessing a profession, as well as the group of those who plan to leave the country to work abroad as soon as possible. It also strengthens the hypothesis that there are students who do not plan further education among the students of high schools which are basically designated to prepare for higher education. In view of the above mentioned, I accept H2 hypothesis.

**H3:** The analyses shed light on that students planning to study further in higher education had considered the employment opportunities the most important aspect out of all analysed factors regarding their decision in case of both surveys. However, it was also stated that the analysed students had considered the employment opportunities provided by courses of engineering and economic sciences the best ones. Almost 60% of the respondents would choose one of these two fields in case of both surveys, which also strengthens the relation. Therefore, I consider H3 hypothesis to have been accepted.

**H4:** After the analysis of the selection of the course I revealed that the majority of the students choose a course based on future employment opportunities and the expected salaries. Having analysed their ideas regarding the years after further education, I proved that a high rate of the respondent students want to settle down abroad in hopes for better salaries and living conditions; the respondents chose this form of settlement with the highest proportion during the survey of 2012. In case of the repeated survey, settlement abroad was less accentuated aim. The

findings of both surveys showed that a higher rate of those students who want to settle down in Hungary would like to stay in the economically developed West-Hungarian region or in the area of Budapest which is the economic centre of the country. Those students who choose an institution in Budapest hope better employment opportunities and better salaries. All in all, H4 hypothesis is verified.

**H5:** I divide the question into two parts to analyse the hypothesis. On the one hand, to what extent the examined students choose a higher education institution in the capital during the selection of the higher education institution, while on the other hand, to what extent they plan to settle down in Budapest after graduation. As for the direction of further education, in 2012 almost 50% of the respondents would have indicated an institution of the capital as the first place, and almost two thirds of the students plan to study in Budapest based on the planned applications for the first three places. Based on the findings of the survey of 2015, although there is a realignment among the higher education institutions of the West-Transdanubia region, the specific weight of the institutions of the capital still prevails, and more than 40% of the respondents would choose an institution of the capital in the first place. Thus, having analysed the first aspect, I came to the conclusion that the institutions of the capital have a significant draining effect on the secondary school students of the area.

As for the second part of the statement, namely settlement, only 17% of the examined students want to settle down in Budapest based on their ideas about the years after graduation, however, a much higher rate, namely 33% want to settle down in this area. The intention to settle down abroad has a much greater draining effect than Budapest as in 2012 37% of the respondents thought that they would choose that option, thus the draining effect of Budapest can be observed among the students of the region, but it is not determining.

In view of the above findings, I partly accept H5 hypothesis as although the institutions of the capital have a significant draining effect, settlement abroad has a much greater draining effect from the viewpoint of the settlement in the region.

**H5:** I divided the analysis of the question into two factors again. On the one hand, with regard to the direction of further education in 2012 almost 30% of the respondents would have chosen the institutions of the county in the first place, and altogether slightly more than two thirds of them had considered an institution of the county. In 2015, the rate was almost 35% regarding first place application, and more than 80% in point of application for all three places. This unequivocally shows the increasing importance of the county in higher education in the area.

Having analysed the ideas about the years after graduation, I proved that within the region Győr-Moson-Sopron County is characterized with the lowest rate of planned wandering. This is the most attractive domestic place for settlement, except for Fejér County, among the counties of the analysed two planning-statistical regions of NUTS 2 level. Based on all of these, H6 hypothesis is verified.

**H7:** Several analyses shed light on the fact that young people do not have realistic career ideas before entering labour market, both in case of secondary school students (GfK, 2008; Deloitte 2013; Deloitte, 2015; GfK 2015) and higher education students (Tamándl et al, 2010; Bordás et al, 2010; Tamándl et. al, 2014). They evaluate employment opportunities in an excessively optimistic way, their income expectations are higher than what can be realistically realized, and they do not have a broad picture about their own form of work.

However, my surveys that were conducted in 2012 and 2015 and analysed the ideas of the area's secondary school students about labour market showed that these young people see their own future opportunities in a more realistic way compared to the analyses of national representative surveys, institutional analyses of students' motivations and career monitoring surveys. We can observe higher income expectations in case of those who originally plan to work abroad after graduation and who choose a field like technical, engineering or IT career which offers more profitable job opportunities in labour market. What's more, among those students who want to work in Hungary the average income expectation is higher in case of those students who want to work in the economically developed region of West-Transdanubia and the area of Budapest, where multinational companies offer higher starting salary. Based on my own research, taste for entrepreneurship is also higher in this area than the country's average, but this value is not outstandingly high.

In view of the above findings, I cannot accept H7 hypothesis as the ideas of the examined target group about their labour market role is absolutely realistic.

## **The summary of the new scientific results**

With the transformation of service systems new systems come off, and among these, the institutional frameworks of education-training change, which requires a novel handling. The labour market demands of knowledge economy drastically changed in the past two decades; knowledge and this way the role of education up valued – higher education system has to face new challenges. The nature of knowledge also changes, and therefore institutions and students have to face new requirements.

Due to the population processes of the developed world, the number of domestic young people decreases, which decreases the domestic source of institutions. If we see higher education as a global market, we can state that there is a higher education boom in developing countries, which creates new opportunity as well as a new scene of competition for institutions. So this creates a competition for higher education institutions, which requires them to hold on in international context. Knowledge and education, – especially higher education – which produces knowledge, become strategic resources at economic level, therefore their role markedly appears in EU strategies (Lisbon Strategy, EU 2020) too, however, education becomes the key question of holding on in international competition for each national economy.

Thus, the nature of competition is dual; there is a competition among the education systems of each nation, and among the education institutions at national level. As a result of these, spontaneous marketization processes started in higher education, which is directed by the EU at international level and by the nation at member state level but to a different extent in case of each educational model. Therefore, market regulatory mechanisms are simultaneously present in most countries – processes are formed partly by institutional supply and students' demands –, but these processes take place in a state-formed market. The extent of state involvement is different in every education system.

Another challenge for higher education is the different sociologic and psychologic features of the youngsters of 'Generation Z', which requires a new type of approach when communicating with them.

Domestic higher education system has had a special developmental path since the 1990s; market liberalization took place in the previously limitedly accessible and strongly stately higher education, so the expansion of higher education started in accordance with the international trends, but late compared to the developed Western world. The education supply broadened, new types of courses appeared, already existing institutions transformed and the extended their capacities, while new institutions were also set up. Due to the extending capacities, the number of higher education entrants significantly increased, on the one hand because a significantly higher rate of young people entered higher education, and on the other, because those who were previously excluded from higher education had the opportunity to get a degree through various programs. The structure of education only partly followed the structure of economy and the demands of labour market, so special structure became deformed. The years of 2000 brought changes again with demographic changes and the desperation of quantitative reserves, and the competition for students came up in education market. Institutions

were forced to do conscious planning, to optimize their processes and marketing aspect also appeared in the direction of institutions.

After the initial success of applying marketing communication institutions had to step further and more conscious qualitative efforts started, and more thorough planning as well as greater attention to career choice was needed. Career monitoring system, the analysis of students' motivations and the career orientation of secondary school students were evolved and matured. Marketization and the greater attention to supply-demand caused the adaptation of marketing tool kit in the life of the institutions.

Thus, in this situation demand for higher education has an outstanding importance, namely the accurate knowledge of career choice motivations of secondary school leavers. Although national and broad analyses introduce the motivations of higher education students and the results of career monitoring in case of graduated students, there are relatively a few pieces of research dealing with the secondary school students' selection of higher education institution and course. A greater part of these analyse a special aim (GfK-Provident, Deloitte – income expectations, financial knowledge, etc.), and do not interpret the decision on further education in higher education in a complex way. The importance of the surveys conducted by me, therefore, lies in the fact that although these were not national representative surveys, they analysed broadly and with time series the career choice of secondary school students at regional level. In view of the results it can be seen that in most cases we got a modulated picture than in case of surveys about the income expectations, for instance. The findings of the surveys can be compared well with the results of national surveys, and the specific labour market structures of West-Transdanubia region can be observed in the career choice aspirations of the region's secondary school students. The rate of those students who want to study in engineering or economic field is higher, which is the effect of the area's strong industry and economy.

The novel results of my empirical research are as follows:

1. My survey proved that complex decision variables are in the background of the decision on further education in higher education. Those who do not want to participate in higher education form a heterogeneous group, and two factor appear in their decision, on the one hand the fears of further education (bad scholastic records, inappropriate financial conditions, the lack of familial support), an on the other hand, a positive picture about future by possessing a profession. Therefore, this group is not homogeneous, it can be classified into more clusters based on their motivations, and among these the group of those who are unsuitable for higher education appears as well as the group of those who hope employment abroad as soon as possible and better

salaries by possessing a profession. The members of this latter group mean a serious source of new supplies for the expanding higher education vocational training.

2. It was also verified that students choosing further education form a heterogeneous group based on their preferences for the selection of course and institutions, and their ideas about future. By knowing these demands and with the help of cluster analysis we can classify the secondary school students who are about to enter higher education, namely we can segment the primary consumer market of higher education institutions. With regard to the analysed area it can be stated that students make their decisions based on employment opportunities and expected salaries of the current labour market situation. (It is a different question to what extent this situation will change if they get out to labour market.) Young people living in economically more developed area contradict those results of national surveys according to which they have unrealistic picture about labour market. During their decision, they first choose a course based on their competencies, their families and other patterns they follow, and their previous studies, and only after this they choose institution. The aspects of the selection of institution highly differ in the clusters of quality-oriented students, self-fulfilling ones or those who strive for social safety. Universities should address these groups with different service packages and diverse communication.
3. It was proved that there is no ‘best practice’ of the organization of enrolment activity of higher education institutions (which is only one, but important part of institutional marketing communication). Every institution has to develop its own ‘good practice’ in line with the specific regional conditions – thus Széchenyi István University also has to do so. For the institution, it is an important factor that young people living in an area with strong industrial culture see their labour market opportunities, their employment abroad, and their further education chances in a different way. That’s why, higher education institutions have to communicate simultaneously in an appropriate way with more target groups in such a way that they know their own spatial, economic and social structures, as well as the preferences of the area’s students as their potential ‘customers’.
4. Because the data of the surveys of 2012 and 2015 enabled time series analyses, I was successful in revealing that the career choice preferences of the examined target group barely changed during this period of three years in spite of the fact that during this time more changes affected the entrance system, and there were institutional realignments and integrations as well. All of these factors slightly affect the value system and the

motivations of secondary school students who are about to decide on further education. Interest towards technical courses has risen to a lesser extent compared to the most popular economic courses of previous times, the preferences regarding gathering information has slightly changed as well as the influence of opinion-formers regarding career choice, but the main rates remained unchanged. This concludes that these are slowly changing attitudes which are difficult to influence, therefore the transformation of higher education at any level, and the modifications in career orientation systems are long-acting processes, so their effect is negligible a few years ahead.

However, the surveys also shed light on what further tasks I have to face, to which direction it is worth extending the research in the future. The tasks to be done by me are as follows:

- Within the frames of years, the slowly changing motivations spur me on continuing the research over a longer period of time in favor of making further time series analyses, so that dynamically changing tendencies could be introduced – similarly to surveys about students' motivations and career monitoring.
- A high rate of the examined students responded that they would like to settle down abroad. In accordance with this, foreign, mainly cross-border higher education institutions (e.g. the universities of Vienna) should be examined as well, and the motivations of domestic students to study further abroad should also be analysed.
- In case of future analyses, I have to consider the effects of the changes in the meantime, e.g. integrations affecting the area's higher education institutions, those of structural changes, and those of the realignments of public education system.
- The target group of higher education institutions will have to be extended to foreign students (e.g. those of the third world), since this means an increasingly growing market for domestic institutions.
- It is important to measure the market demand for the expanding supply of higher education vocational training, which probably requires new approach considering the target group.

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