ATTITUDE OF THE SMEs IN THE SOUTH PLAIN REGION TO THE ACADEMIC INNOVATION

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ABSTRAKT

In the 20th century the role of the university transformed towards to research, applied research besides education, In addition, there is a third function, too, namely marketing/saleing, of the research results via spin off companies.
The European Commission – according to what was said at the summit of Lisbon- regards universities as the heart of the economic development (Shattock, 2009). They say that the European universities –comparing to the ones in the USA- do not utililize fully their potentials. They consider as the main shortcomings, that the European universities are not able to react to the new challenges, to support economic development and thus, they should be forced to accomplish reforms (COM, 2006(a)).
For this reason, the European universities, so have the national ones, have started to realize technology transfer offices, spin-off firms, regulations on research utilization.
The necessity of these changes has been widely debated by the society so far.
We intended to get to know the attitude, motivation and actual problems of small and medium entrepreneurships in the region of the South Plain with a questionnaire research. First of all, we asked the managers to fill in the compiled questionnaires separately, online. They were the members of Chamber of Commerce and Industry of Csongrád County. They were informed about our survey by the Chamber in the form of Newsletter. Supply of data was voluntary, but in the interest of further availability we asked the firms and their managers to give us their address and phone number. We processed the questionnaires, altogether 46, by means of the Microsoft Excel program.
The main question groups were the following:

- We started with general questions in connection with the businesses.
- In the second question group we tried to map, in an indirect way, if they feel the necessity to form a connection with the University. So we asked if they have any, non-financial problems to be solved or ideas to be realized which they could not accomplish alone.
- The third question group aimed at the innovative activities of the enterprises. We tried to collect data about how much the enterprises accomplish Research and Development activities or if they have an organization of innovation.
- With the fourth question group we intended to see the knowledge and opinions in connection with the University of Szeged.
- Finally, we examined disposition for cooperation with the fifth question group. We wanted to see if the managers would like to form a connection with the university.

1. INTRODUCTION

In the 20th century the role of the university transformed, besides education, research work is coming into prominence more and more. In addition, there is a third function, too, namely marketing the research results.
The European Commission – according to what was said at the summit of Lisbon- regards universities as the heart of the economic development (Shattock, 2009). They say that the

European universities –comparing to the ones in the USA- do not utililize fully their potentials. They consider as the main shortcomings, that the European universities are not able to react to the new challenges, to support economic development and thus, they should be forced to accomplish reforms (COM, 2006(a)).
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The necessity of these changes has been widely debated by the society so far.

During the research work we assessed the small and middle businesses for the initiative of this kind of the University of Szeged.
Our aim was to make a survey of the entrepreneurial demands, and to see how much the entrepreneurs are disposed to accomplish an innovation or to get to know more professional knowledge in cooperation with the University.

2. SURVEY OF THE SPECIAL LITERATURE

2.1.Explanation of the most important terms on the subject

The term *„tech-transfer"* is „the flow of know-how, the technical knowledge or a technology from one organizational environment to the other" (Roessner, 2000). Or in other words, it is a so-called umbrella term which contains a lot of activities from elaboration of the technology up to its realization on the market (Doheny-Farina, 1992).
The university tech-transfer can be realized in several channels. Some professionals (Link et al, 2006) distinguish two main types:

1. Formal – for example, licence contracts, spin-off businesses, academic-industrial research projects
2. Informal – for example, interaction between friends, joint publication of a company's researcher and a university teacher

The special literature treats the *scientific entrepreneurship* as the synonym of the academic-industrial tech-transfer, and of establishment of spin-off businesses (Klofsten, Jones-Evans, 2000). Hart (2003) identifies the scientific entrpreneurship with the economic growth of universities and their role in the national innovative system, in wider sense, while with the tech-ransfer, in a narrow sense.
Louis et al (1989) distinguish five basic forms of the scientific □ntrepreneurial activity which are the following, in the decreasing order of compatibility with the traditional role of researcher:

1. large-scale research projects (financed through tenders, applications),
2. additional income, besides university (eg. Professional, technical advice),
3. procurement of financial sources by utilizing academic-industrial connections (eg, contractual research work),
4. patenting the research results, and
5. operation of (spin-off) businesses established to utilize the research results.

If we examine definitions of the *enterprising university*, it becomes clear that, apart from some common points, there is not a common opinion regarding the explanation of this phenomenon. These definitions are problematic because institutions of higher education are loose leagues of departments and faculties of great autonomy. For this, we can rarely

talk about homogeneus enterprising universities, rather about enterprising researchers, departments or faculties.
On the basis of the examination carried out on the enterprising transformation in American, European and Latin-American universities, Etzkowitz (2004) formulated the following five arguments (CIIHIR) to describe the entrepreneurial universities:

1. Capitalisation, realization and transfer of knowledge for scientific and market purposes.
2. Interdependence, elimination of the ivory tower-behaviour, formation of tight connections with the government and the industrial sector.
3. Independence, since the enterprising university is not subordinated to any other sectors.
4. Hybridisation, because release of the conflict between dependence on the market demand and the institutional independence requires realization of crossed organizational forms.
5. Reflexivity which means that permanent transformation of the connections with the other spheres (eg, industry, government) makes the constant innovation of the inner organizational structure necessary.

2.2. Entrepreneurialism of the Hungarian universities

Research of HRUBOS et al (2004) done between 2001 and 2002 is the most thorough study at present which examines the enterprising transformation of the Hungarian universities. Hrubos and the research team present the philosophy and the way of operation of three Hungarian universities (BME, SZIE, PTE) and four foreign institutions in the form of case studies, on the basis of Clark's methodology and criterion system. Although they chose the three basic types of the Hungarian universities (specialized university, integrated university with more campuses, classical science university) as the object of their analysis, according to the authors it is not representative regarding the entire Hungarian system of higher education.
The team of Hrubos conclude, on the basis of document analysis, and interviews with academic managers and other competent persons, that the main obstacles to the entrepreneurial transformation of the Hungarian universities are the strong organizational decentralization and the autonomy of high level in case of faculties and departments. Disunity of this kind hinders the quick and efficient decision-making, restricts the scope for action of the academic management, and finally, increases disparity between faculties and departments. The authors, similar to the international special literature, establish that certain faculties (information technology, technical or economic-business) have stronger market attitude and connections, due to their features, than the others (faculties of arts and of natural science). Since there is no redistribution of income between faculties in different situation, decentralization is to the advantage of more entrepreneurial departments and it significantly aggravates the operation of the entire university.

3. MATERIAL AND METHOD

We intended to get to know the attitude, motivation and actual problems of small and middle businesses in the region of the South Plain with a questionnaire research. First of all, we asked the managers to fill in the compiled questionnaires separately, online. They were the members of Chamber of Commerce and Industry of Csongrád County (Csongrád Megyei Kereskedelmi és Iparkamara). They were informed about our survey by the

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4. RESULTS AND THEIR ASSESSMENT

To show the results we present the answers given to the 4th and 5th question groups.

Businesses of the ones who filled in the questionnaires can be characterized by the following (Table 1):

Table 1 Statistic characteristics of the enterprises of those who answered the qustions (n=46)

According to the feature of the enterprise	number	%
Private	16	34,8
Joint	30	65,2
According to the size of the enterprise		
small	11	23,9
middle	3	6,5
micro	32	69,6
According to the ownership of the enterprise		
Hungarian	46	100

Only two questionees have never heard of the University, so the sample number decreased to 44 from 46.

The questionees had to assess the university from 1 to 5 on the basis of some aspects. Table 2 shows the average scores and their dispersion.

Table 2 Assessment of certain features of the university – questionees' opinion (n=44)

Feature	*Average score*	*Dispersion*
Theoretical knowledge	4,5	0,586
Know-how	4,4	0,583
Reliability	4,3	0,614
Accuracy	4,1	0,759
Fame, reputation	4,3	0,945

High scores can be seen in the table, so the questionees have a good opinion about our university. This positive reputation helps realize the connection necessary for cooperation.

The nature of this connection was defined in three levels: development, counselling and a possible course, and we asked questions about these possibilities. The answers are shown in Table 3.

Table 3 Questionees from the aspect of connections (n=46)

Development	number	%
Yes	18	39,1
No	28	60,9
Counselling		
Yes	22	47,8
No	24	52,2
Course		
Yes	23	50
No	23	50

Most of them (50%) would like to form a connection in the form of a course. Counselling is required in a similar proportion (47,8%). Much less managers would need professional help to develop their enterprises, only 40% thought so.

Diagrams 1 and 2 give more information about the actual reguired field of counselling and course organization.

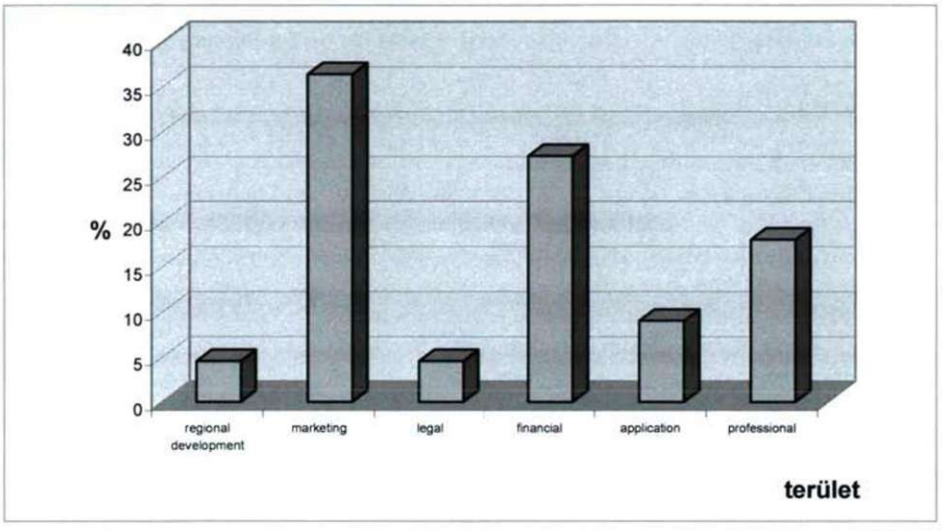

Figure 1 Questionees on the basis of the fields of counselling (n=22)

It can be seen from the answers that most answerers (36,4%) would need marketing counselling. It supports descriptions relating to the questions on actual problems in the second question group. Besides marketing, there would be some demands on financial counselling (27,3%), also the technical field (eg, electronic, technical engineering) would need more information. One person would need counselling on regional development, while the other on legal problems.

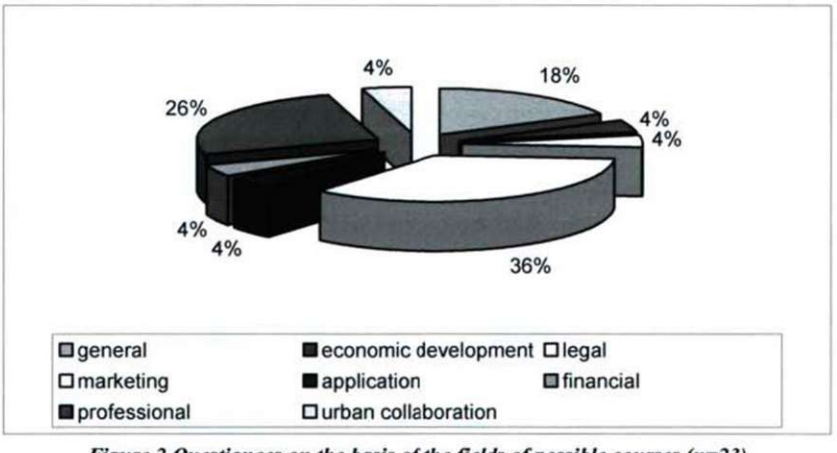

Figure 2 Questionees on the basis of the fields of possible courses (n=23)

Similar to what have been said before, most people would need courses on marketing (36%). Entreprenuers would be interested in professional, technical courses (eg. car

mechanic, renovation of historic buildings, food industry, taxation and financial affairs) (26%), and they would like to get some general knowledge on entrepreneurship (18%).

5. SUMMARY

As an effect of the transformed social and economic conditions, the University of Szeged has headed towards a new direction which is accepted in the USA and in the EU, too: towards the scientific entrepreneurship.
As a first step, we carried out an examination among the small and middle enterprises in the region of South Plain.
On the basis of the subject matters we had an idea about:

- the most important parameters of the enterprises,
- actual problems, ideas to be realized,
- disposition for innovation,
- opinion about the university,
- disposition for cooperation with the university.

The questionnaire was filled in by 46 people. The proportion of filling is quite low, but we can establish some facts even on the basis of these almost fifty answers.
We can conclude from the answers:

- by means of the questionnaire we could get to know the problems to be solved of the answerers, so it was suitable to map the claims;
- in conformity with the special literature, the innovative activity is not significant among the questionees;
- reputation of the University of Szeged is good, so we can assume the positive attitude necessary to form connections;
- the entreprenuers would like to apply for courses organized by the University, or to turn to the counselling provided by the University.

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