INNOVATION – FACTOR AFFECTING THE COMPETITIVENESS ANALYSIS OF THE HUNGARIAN SMALL AND MEDIUM Sized ENTERPRISES

VÉGHOVÁ Katarina

Abstract

Small and medium-size enterprises have significant participation in the process of forming of market, creation of GDP, employment, etc., as in the Hungary, as in the European Union. This field of enterprise presents large potential, which could be raised, by using of support on the different levels, by using of knowledges, or by implementation of innovations. The aim of this paper is evaluation of present state, possibilities of support and development of small and medium-size enterprises (SMEs) in the conditions of Hungary.

Key words: Small and Medium-Size Enterprises (SMEs), Significance, Innovation Scoreboard

JEL Classification: F

Introduction

According to the European Innovation Scoreboard (EIS) Hungary belongs to the group of moderate innovators’ with an innovation performance below the EU average. This is a new classing as in 2008 the county was one of the ‘catching-up’ member states with almost the same parameters. The fallback has a negative influence in the county’s economic achievement and also its competitiveness. EIS provides a comparative assessment of the innovation performance of U Member States, and its rank Hungary is only 19th one. What can be the reason of this low performance which is especially considerable in the sector small and medium sized enterprises?

Despite the unfavorable circumstances there are SME’s in Hungary being market leaders not only in Hungary but even in international markets due to the great innovation performance. What is there secret of these small companies? What do they know and what do they do in order to be successful? What should be done to make the opportunity for the rest of the Hungarian SME’s to have the same success? In the study we search for the answers of these questions.

Results and Discussion

The European Innovation Scoreboard was first introduced in 2000 in order to provide annual comparative assessment of innovation performance across the EU and other leading innovative countries. It includes 29 innovation indicators grouped in three major groups of dimensions namely:

- ‘Enablers’ captures the main drives of innovation that are external to the firm. It is divided into ‘‘Human resources’’ and ‘‘Finance and support’’ dimensions
- ‘Firm activities’ captures innovation efforts that firms undertake recognizing the fundamental importance of firm’ activities in the innovation process. It covers three dimensions: ‘Firm investments’, Linkage and entrepreneurship’ and ‘Throughputs’
• ‘Output’ captures the output of firm activities and is divided into two dimensions: ‘innovators’ and ‘Economic effects’ [3]
  Based on their innovation performance across 29 indicators, EU Members States fall into the following four country groups:
• INNOVATION LEADERS with innovation performance well above that of the EU average and all other countries
• INNOVATION FOLLOWERS with innovation performance below those of the innovation leaders but above the EU average
• MODERATE INNOVATORS with innovation performance below the EU average
• CATHING-UP COUNTRIES with innovation performance well below the EU average [1]
  Hungary belongs to the group of ‘moderate innovators’ with an average growth in innovation performance (the growth calculation is based on the absolute changes in the indicators) (Figure 1).

Figure 1 - Innovation performance

Source: Converge in innovation performance (2009)

In what follows the Hungarian performance will be discussed in some of the innovation indicators just like human resources, finance and support and also firm activities mainly focusing the achievement of small and medium-sized enterprises.

Human resources in the European Union and in Hungary
  High-skilled and educated people are one of the most important key inputs for innovation. Three important indicators are going to be represented:
• ‘S&E (science and engineering) and SSH (social sciences and humanities) graduates per 1000 population aged 20-29’ which is the measure of the supply of the new first stage tertiary graduates
• ‘S&E and SSH doctorate graduates per 1000 population aged 25-34’ measuring the supply of the new second-stage tertiary graduates
• ‘Participation in live-long learning per 100 population aged 25-64’ being the central characteristic of a knowledge economy as the ability to learn can then be applied to new tasks with social and economic benefits.

As it is obvious from the following figures Hungary has a significant fallback in case of the three indicators and the difference is growing. The difference in S&E and SSH graduates was only 6.3 in 2004, but it increased to 11.7 by 2008. The level of higher education causes an additional problem as knowledge and professional skills of the graduates not always meet the requirement of the business sector.

Figure 2 - S&E (science and engineering) and SSH (social sciences and humanities) graduates per 1000 population aged 20-29


The number of doctorate graduates in Hungary is well below the EU average. By looking at Figure 3 the Hungarian fallback is revealed. The difference is increasing between the Hungarian and the European achievement: in 2002 the EU average was twice as big as the Hungarian one; in 2008 this difference was almost triple.

Figure 3 - S&E (science and engineering) and SSH (social sciences and humanities) doctorate graduates per 1000 population aged 26-34

Life-long learning is defined as participation in any type of education. All types of learning are valuable for future innovators. Figure 4 reveals the decreasing tendency in case of Hungarian achievement. Among the three discussed indicators the country has the greater handicap in life – long learning in comparison with the EU average. The difference is due not to the growth of the European performance but to the Hungarian decrease.

All of these factors have a impeding effect of the Hungarian innovation performance, as there is an obvious deficiency in a key input for innovation. According to this result the country can rather be ranked as one of the catching-up Member States than a moderate innovator.

Figure 4 - Participation in life-long learning per 100 population aged 25-64


Research and development expenditures

R&D expenditure represent one of the major drives of economic growth in a knowledge based economy. Innovation leaders all spend a significant part of their GDP for research and development. u and business R&D expenditures can be distinguished according to the origin of the spending. In case of the latter a continuous increase is shown in innovation leader countries which is an obvious evidence of the growing account of bottom-up initiatives.

According to the Lisbon Strategy Member States are recommended to spend at least three percentages of their GDP on research and development however apart from Finland and Sweden none of them comply with this recommendation. As the public R&D expenditures the Hungarian achievement is approximately two thirds of the EU average due to a decrease started in 2005. Since the business R&D expenditures did not increase simultaneously the aggregated indicator also decreased.

The reduction in public spending by itself would not cause a problem if the business compensated it, as it happened to one of the pioneers of innovation, Finland, where the changes of the internal rates does not prevent its slow growth.

In Hungary however it is not the case. As it is shown in figure 5 the Hungarian R&D spending is much less than the EU average. Members States which joined later the EU increasingly close to the Hungarian results. [4]
The significant shortfall should not necessarily been recorded as a clear disadvantage as research and development is not the only area in which a country can improve its innovation performance. Steve Jobs, Apple's founder in 1998 said:

“‘Innovation has nothing to do with the amount of dollars you spend on R&D. Innovation is not a question of money. Innovation is about people work for your company.’”

**Innovation performance of small and medium-sized companies in Hungary**

Furthermore the small and medium – sized enterprises will be discussed in the performance of the entire business sector. The investigation includes both the ‘in-house’ innovations and the innovations collaboration with other companies.

The two indicators do not include products and technologies developed by others. As it is displayed in Figure 6 concerning the in-house innovation of SMEs Hungary is the last in the European list. The performance of innovation leaders is three to four times better than the Hungarian achievement.

Results are not much better in case of innovation in collaboration with others. This indicator is of overriding importance because it shows that what proportion small and medium-sized enterprises are involved in complex innovation processes based on joint work. The indicator also measured the flow of knowledge between the public sector and firms and also inside the business sector. Hungary’s performance surpasses only for other European countries’. In the Figure 6 and Figure 7 the Hungarian achievement is displayed to the EU average.

In Hungarian only 16 percent of SMEs introduce and implement new product and technology innovations; with this the country is 24th in the list of EU Member States. The performance is even worse in case of organizational and marketing innovation: Hungary is only the 25th.
Due to the lack of introduction of innovations Hungarian small and medium sized businesses are able to save only a minimum of labor, low material and energy costs. According to the SII indicators in case of the former Hungary has the penultimate place in Europe, while in case of the latter the country has a slightly better achievement but it is still brought up the rear.

As it became obvious the Hungarian SMEs have a low innovation performance while they also have a substantial proportion of the country’s economic life: 71 percent of the employees are employed in the sector and about 50 percent of the gross domestic is produced. What can be the hindrances that impede the Hungarian SMEs innovation activities and how might they be resolved?
Practical Case Studies
(Successful Hungarian Small and Medium Sized Companies)

OVÁR Equine rehab and healthcare service
The OVÁR Equine rehabilitation and healthcare service is a four-member micro-enterprise, which is now one of the most equipped and skilled service of the country thanks to the continuous innovations. The innovations are mainly characterized equine healthcare related medical treatments, surgical procedures and rehabilitation processes. The most important development is a unique service in equine healthcare the aquatraining program (balneotherapy) with the suitable equipment, which is only available at the firm. The use of the equipment can support the training of race, dressage, jumper and endurance horses, but it is also suitable for rehabilitation following certain injuries or operation since it can increase the changes of recovery and decrease the rehab time. The equipment itself is a treadmill built into a narrow pool (called aquatrainer) with front a rear doors allowing the horse enter the treadmill and walk out at the end of the training. When the horse is already inside the two doors are going to be closed and the pool filled with warm thermal water which height and temperature can be changed depending on the requirements. After this the machine is switched on and the horse begins to walk in the water.

The treatment is special because due to the buoyancy the burden on bones is minimal while the walk in the dense liquid strengthens the muscles efficiently, thereby helping to agglutinate bones to recover faster than under normal circumstances.

Presently OVÁR Equine rehab and healthcare service is the only company in Hungary that is able to provide for equine balneotherapy rehabilitation. There is a high interest among professional rides and horse owners.

According to the manager of the company there were important elements contributing the success of the innovation. First of all a good marketing work accompanied the project which made the service know and marketable among horse owners. For the implementation public subsidy had been used. But perhaps the most important factor was the manager’s persistence, enthusiasm and good business sense.

The company’s success however brought a strong resistance from the side of the competitors that was clearly due to professional jealousy. This inevitably resulted in a negative advertising, but its effect was fortunately much weaker than the satisfaction of the customers. Using public aid was not free from problems either. Although the company has implemented the project in compliance with all requirements, the first grant allocation was nearly 12 months late. The manager’s legal remedy was rejected without explanation of the project.

The manager is basically satisfied with his overall business results, but emphasizes the difficulties Hungarian entrepreneurs are force to cope with in a political and economic environment blinding eye over and sometimes even supporting illegal, corrupt and criminal activities in the country. In his opinion work done and results achieved abroad have a higher respect in both professional and customer circles. Long-term success can only be achieved if the company properly communicate with all external stakeholders, and assume the responsibility for its work of professional and financial terms either. It is also important to undertake innovations which are able to create their own markets and operate independently from the public sector.

Lehel Coachbuilder Ltd.
Lehel Coachbuilder Ltd is a Hungarian-British-owned company which continues the tradition of the Hungarian shareholders. The firm produces carefully designed horseboxes with luxury interior. Neither the production nor the design is not standardized, each vehicle is
built according to customer’s specific needs, so each product of the company is a result of innovation. The price of a truck is several time higher than a luxury car’s and the company’s name became know all over the word.

The vehicles would also be considered unique that each component is precise hand-produced within the old technology without using outside suppliers. Thus Lehel belongs to the largest traditional automotive producers. In addition to manufacturing the company has American and European service networks where hundreds of people work.

The company has no rivals in Hungary and there are only three in Europe with whom the firm maintains a good partnership and often collaborates. The targeted design time of a vehicle is two days, but during this time 8-10 designer keeps working on the plants. The manufacture of a truck takes about 4000-4200 working hours which are approximately up to 20 days depending on the number of workers. The vehicles are able to simultaneously meet a number of functions: they can ensure a comfortable stay for four to eight horses while they also provide for a mobile home.

The recognition of market potential and the successful application of previously developed technology have largely contributed to the company’s success. The workers positive and enthusiastic attitude was another important influencing factor. The firm’s decision makers were able to expand their market and find other market segments in addition to horse owners. The company’s success cannot be proven better than the Ferrari racing team using Lehel trucks to transport their vehicles.

Despite the unique success the Hungarian owner is not satisfied with the results, because the company’s activity is strongly hindered by the Hungarian economic policy that rather support multinational companies settled in the country then domestic producers. An additional impending effect is the Hungarian application system with a corrupt background causing disadvantages in some cases for the applicant instead of advantages.

Therefore the interviewee would suggest to other to start such a quantity and quality production abroad production abroad as he would do with his today’s knowledge.

**Lénia2 Advertising and Media Agency**

Lénia2 Advertising and Media Agency was among the first established domestic firms after the political changes. Its activity includes advertising, public relation and marketing in almost all branches. Having a much smaller market of potential customers than a similar agency in the capital (the company operates in Székesfehérvár city, Hungary), the firm does not focus on sectors of activity since it would not necessarily provide the level of efficiency. The advantage however is that the smaller organizations are more flexible and are able to complete their tasks faster than bigger companies. Innovation is a vital element of the company as its activity is continuously renewing. The most typical innovations are in the field of marketing and promotional activities such as web design, television and radio spots editing, leaflets and brochures and so.

The success story of the company however is the “Ősfehérvár” program. The idea of the program was given by searching for answers for an increasingly difficult situation burdening downtown shops and restaurants. The biggest problem was caused by establishing a huge shopping center in the middle of the town resulting that the small downtown businesses has lost a significant part of their customers. Enterprises were struggling to survive, so a common approach has been proposed by Lenia2. The purpose of innovation and these essence of the program in one is that participating business in return for a modest fee (2000 HUF/month) receive marketing tools with the help of with they may compete with multinational firms. This means first printed media, on the other a common portal where companies can update the information daily. One of the most important condition of registration that the shops cannot be in the area of shopping centers. In addition to firms the agency also recruits customers for
whom the so-called “Ősfehérvár” card is issued. A card costs 990 HUF and in each of the participating business certain discounts are provided for the customers. Stores can only enter the network if they provide for guaranteed benefit for the cardholders. This benefit is a minimum of five percent, but the major part of the cardholders. This benefit is a maximum of five percent, but the major part of the companies give a larger discount. Currently 330 firms and 22-23 thousand cardholders strengthen the local patriotic initiative which has become the largest local coalition nationwide. The manager believes that the key to success is the responsiveness, expertise and innovation. Their success can largely be thanked the creative and enthusiastic team and the fair business behavior. For the results of the project the external factors were also essential namely the support of the municipal government and the local people.

In addition to its success the company also has difficulties. In often must compete with companies which offer cheap low-quality service. Another problem to cope with is the negative discrimination of Hungarian economic policy against the Hungarian SME sector making impossible for a significant part of the small and medium-sized businesses to survive.

**Results of case studies**

In the European context the Hungarian small and medium sized enterprises sector has a rather performance in innovation activities. Either the in-house innovation or the innovation in collaboration with others is well below the EU average. Results are not much better in case of applying other’s innovations either. One of the reasons may be the shortcomings in the Hungarian education policy, resulting a performance far below the EU average concerning both the number of academic qualifications and doctoral degrees.

The primary research revealed that what difficulties Hungarian SMEs with outstanding achievements have to face with during their innovating activity. These results can be summarized as follows:

1) A company operating in Hungary and targeting the Hungarian market is forced to work in a corrupt system. That is why it can prosper fairly only if it is able to function independently from any public support.

2) The Hungarian economic policy prefers multinational companies to domestic producers. It supports the former via tax allowances and subsidies with tender requirements a small enterprise is not able to fulfill.

3) The success of a small or medium sized company depends on the manager (owner). It he/she is ambitious, enthusiastic, has a high professional knowledge he/she can build a team struggling for a common goal.

4) The good leader is not enough, good followers are required. The employees’ creativity, ideas contribute greatly to the success of the company. This calls for direct and stress-free workplace that allows creative thinking and ideas.

5) Proper communication with all stakeholders and both professional and financial responsibility for the work done are critical to the success.

6) The Hungarian society does not create favorable circumstances to innovation. Successful Hungarian companies are often surrounded by professional jealousy, envy, either from the society and the rivals.
Conclusions

Overall we can conclude that Hungarian SMEs have difficulties working in present economic circumstances. Neither the economic policy nor the social situation helps innovators. Meanwhile the innovation and innovative companies are driving force in the domestic economy, it does not matter therefore that knowledge-intensive, high value-added activities or the so-called “Assembly” capital [3] is supported by the economic policy.

For the effective development suitable economic reforms and appropriate social values would be desirable.

References


Adresa autorů:
Ing. Katarína Véghová, PhD., J. Selye University in Komárno, Faculty of Economics, J. Selye University, Bratislavská ulica 3322, 945 01 Komárno, Slovakia, tel.: 00421/907/194807, e-mail: vegh.katalin@selyeuni.sk