STUDY REGARDING INNOVATION AND ENTREPRENEURSHIP IN ROMANIAN SMEs

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Abstract: The paper presents and analyzes the results of a study realized at the national level regarding the degree of innovation in Romanian SMEs. The study was realized on a representative sample of SMEs from different activity sectors (such as industry, construction, service). The main objectives of this analysis are:
- identification of activity domains that have a high level of innovation and those that have innovation potential;
- identification of the problems with which Romanian SMEs deals in innovation activity;
- identification of the degree of preoccupation for innovative activity, products and processes.

Key words: productivity, entrepreneurship, SME, benchmarking, IT

1. INTRODUCTION

Innovation consists of the successful production, assimilation and exploitation of novelty in the economic and social spheres. Lisbon strategy, launched in 2000, aims to make the European Union the world's most competitive and dynamic economy by 2010 [1]. Together with the Green Paper on entrepreneurship and the Communication on industrial policy in an enlarged Europe, it plays a part in the development of an enterprise policy to foster the competitiveness of companies and economic growth. Despite some promising results revealed by the 2001 and 2002 innovation scoreboards, the EU still lags far behind the USA and Japan.

The enlargement of the European Union calls for specific action to be taken. People in the newly members (such as Romania) have often had to display a capacity for entrepreneurship in adapting to the transformation of their economies. Although the problems encountered in these countries and in the European Union Member States are often identical, particular attention will nonetheless need to be paid to building up, adapting and installing appropriate financial procedures.

2. METHODOLOGY

The qualitative studies consist of collecting and analyzing the elements which are basis of explaining the opinions, motivations and behaviors of individuals involved in the studied issue. We used a direct method of study, based on obtaining directly the information from the individuals involved in this study. The survey is an investigation done in order to find out the opinions of a given population, by interrogating a limited number of its members (a sample). The main stages of making a qualitative study by survey are:
1. Making up the sample;
2. Determining the sample size;
3. Drawing up the questionnaire;
4. Administering the questionnaire;
5. Processing and analyzing the data;
6. Drawing up the synthesis report.

For determining the sample size, formula (1) was utilized:

\[ n = t^2 \cdot p \cdot (1 - p) \cdot \frac{100}{\Delta \omega^2} \]  

(1)
where: \( n \) – sample size;
\( t \) – statistic coefficient;
\( p \) – probability with which the results are guaranteed, to be more than 96%;
\( 1 - p \) – accepted error not to be more than \( \pm 3\% \);
\( \Delta \omega \) – admissible error.

Thus, for \( t = 2.1; p = 0.946 \) and \( \Delta \omega = 1.236 \); by applying relation (1) results that for observing the statistical conditions a representative sample is necessary, formed of \( n = 26.9\% \) individuals. The total number of individuals target being 400 (leaders and executive/top level managers, respective middle and first-line managers), there are needed a representative samples formed from 108 leaders/managers.

3. RESULTS AND FINDINGS

3.1. Problems of the RDI environment

There is a large consensus on the fact that both the economic growth and the future competitiveness of the economy will be based on research and information activities. Unfortunately, Romania in general, and the West Region in particular, allocates a very small percent from the budget for research activities.

From the data made public on different occasions both by governmental factors and by the Group of Employers of the Research Units, it can be seen that the number of researchers has diminished dramatically over the last 13 years\(^2\).

From the 170 000 researchers existing before 1989, at the present there are only 18 000 people still working in research institutes in Romania, and only 7 000 of them are researchers. The average age of the research staff is approaching 50, as too few young people are attracted by the research activity.

The causes of this lack of interest in research are numerous: very low wages, old equipments, lack of perspective, bigger attractivity of other fields of activity, emigration, etc. The financial effort the state made in order to support the research sector in Romania is of only 4 per inhabitant, i.e. 80 times smaller than in the West-European countries.

The research institutes have been affected to some extent by the privatization process. The legal regulations applied for the privatization of the institutes were those applied to enterprises, which led to serious consequences for the patrimony of these institutes (equipments, projects archives, buildings, patents, etc). After the privatization, some of the owners of the institutes, coming from different business environments, used the patrimony of the institutes for other activities, thus reducing gradually the research activity and changing the profile of the units they had taken over.

It is a fact that the number of employees who work in research and development, per 100000 inhabitants, is 104.1 at the level of the West Region, which represents less than half of the average at the national level, which is of 214.2.

At the level of the counties in the region, Timis county comes first (with 164.2 employees in research and development per 100 000 inhabitants), followed by Hunedoara county (with 86.7 employees in research and development per 100 000 inhabitants), Arad county (with 69.9 employees in research and development per 100000 inhabitants), on the last place being Caras-Severin county (with 59.6 employees in research and development per 100000 inhabitants).

The demands of the economic agents in Romania, as well as from the Region, addressed to the research units, are diverse and consist mainly of\(^2\):
- elaboration of new or modernized production technologies,
- conceiving and realizing production equipments,
- scientific consultancy,
- technical assistance in the field of quality management,
- analyses, tests, specialized examinations,
3.2. SWOT analysis of SMEs

The SWOT analysis of SMEs was made to evaluate the position of the West region in terms of strengths, weaknesses, opportunities and threats.

STRENGTHS
- the diversity of the fields of activity of the companies in the region;
- the existence of a well qualified and trained labour force;
- the SMEs generate new jobs;
- the strong development of the private sector in commerce and services;
- diversified industrial structures that facilitate cooperation inter and intra economic branches, as well as the purchase, at the local level, of a wide variety of intermediary products;
- the existence of a wide variety of raw materials necessary for the industry;
- the existence of a concern for innovation and technological development;
- most of the companies got more than 50% of their turnover from products newer than three years;
- a large scale use of information and communication technologies.

WEAKNESSES
- small share of high technology industry;
- poor industrial management;
- strong disparities within the region;
- limited number of SMEs in the rural area and the less favoured areas;
- poor cooperation between industry and research;
- the lack of a database regarding labour force demand and supply, by professions;
- the lack of viable restructuring strategies of state enterprises;
- the lack of a stimulating system for setting - up SMEs in economically deficient fields;
- the lack of an informational system adequate for supporting activities from all branches of the economy;
- with a view to diversifying the range of services and productive activities;
- little investments in SMEs’ human resources;
- the preoccupations for innovative actions are not systematic.

OPPORTUNITIES
- raise of the European Union funding ceiling for Romania; collaboration with Regional Development Agency West with a view to obtaining financing through European programs;
- increase in the number of investors in Caras-Severin and Hunedoara counties, as a result of their migration from Arad and Timisoara towards the east;
- know-how and technology transfer towards companies working in lohn system, which are able to develop if they could have their own brand and an exterior-oriented image;
- market growth potential;
- stimulating cooperation between SMEs in the region could have as an impact the increase in the added value that remains in the region, thus creating the resources necessary for development;
- financing programs for Industrial and Technological Parks;
• cooperation with universities and consultancy firms, partnerships with foreign companies having the same profile, for technology transfer and access to financing in the innovation field;
• Reorientation of the banks with a view to supporting the setting up and development of the SMEs sector through more diversified banking services;
• Creation of improvement/training programs for SMEs entrepreneurs and managers for.

THREATS
• the enhancing of the living standard, respectively the wage raising, will cause the clients of the lohn companies to move to other regions;
• the possibility of failing to adapt to the quality conditions imposed by the EU;
• the invasion of the market by imported products;
• arbitrary determination of prices/fares for public services due to the monopoly position;
• instability of legislation;
• un-loyal competition due to black market;
• the existence of a very large number of authorizations, endorsements and the same application of different procedures, depending on the competence level of the public servants;
• maintaining high, diffuse, incoherent, unstable fiscality, applied selectively and in a discriminatory manner.

3.3. Entrepreneurship Factors

Looking at the business opportunity ratio (see figure 2), we find that 24% of people from Romania consider that there are opportunities to make business versus 9% in Russia and 52% in Finland [3, 4]. The ratio of people that consider that have the abilities to open new business is 26% in Romania versus 7% in Russia and 49% in Austria (see figure 3).
From the point of view of business opportunity (as seen in figure 2), Romania has an average value, equally with another ex communist country Hungary (25%), but in the same time much lower from Slovenia (47%).

From the point of view of ability to open new business (as seen in figure 3), Romania has also a much lower value (26%) comparatively to Slovenia (43%), but the difference from Hungary has grown (39%).

Bankruptcy fear (see figure 4) is an obstacle in starting of new business for 29% of people in Romania versus 51% in Spain. In this situation the level of this obstacle suggests that risk tolerance in Romania is similar to Hungary that has 30%.

4. CONCLUSIONS

The elements and problems of the study representative for our analysis are the following:
- lack of adequate workforce (with medium and high level of qualification) caused mainly by level of salary inferior to other European Union members country;
- the necessity to acquire new equipments and technologies in order to be competitive; the necessity of new production spaces and modernizing of the existing ones;
- low performance management systems; inexistence of marketing department or poorly develop marketing department.

The innovation activity is insufficient spread among SMEs and the causes are the following:
- existence for many years of lohn system production that eliminate the innovation need in activity of enterprises;
- the foreign firms brings their own technology and are not interested much in innovation;
- there are not enough stimulus to promote innovation among SMEs and the governmental financing are insufficient for research in SME.

Companies do need to play an active role in field of research, development and innovation, particularly in embracing the results of research to help raising their competitiveness.

Finally we mention that, because of the influence of factors like: Romanian European integration, workforce migration, demographic decrease, economic increase, etc., the degree of innovation in SMEs can change anytime in the next period.

5. REFERENCES

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