

IMPACT OF INNOVATION UPON THE DYNAMICS OF ROMANIAN SMALL AND MEDIUM SIZED ENTERPRISES

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ABSTRACT: *Innovation is central to economic growth, as the area in which it develops takes the whole sphere of economic activities: product, process, service, organization, marketing, hence the economic effects they may cause. Creating "innovative enterprises", giving tax cuts to certain periods of time, preferential loans, creating funds 'risk capital' are just some of the measures that European countries which already apply and Romania, willing to encourage innovation. The present paper presents two ways of exposing this issue, using theoretical sources but also real official data concerning the concept of innovation and also the ways of applying it within small and medium sized enterprises.*

KEYWORDS: *innovation, SME, dinamics, management, organization.*

JEL CLASIFICATION: *O31, O32.*

1. INNOVATION AND IT'S INFLUENCE OVER THE DINAMICS OF AN ENTERPRISE

The existence of a market economy dominated by frequent changes, but also by success, especially during the last two decades, assumed taking over of practices of the European Union, trying to align a set of general and specific standards. In the attempt to keep pace with market trends, to cope with increasingly fierce competition and generate competitiveness there were imposed new requirements to address concepts such as "innovation", "technology transfer", "industrial property", "compliance rules" which involved simultaneously the creation of policies that ensure both "convergence and consistency".

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Referring to the concept of 'innovation', it becomes necessary to develop it from the perspective of Joseph Schumpeter, who in 1935, in his "Theory of Economic Development" defined innovation as "the engine of a dynamic process in which new technologies replace old ones through a process that he called it "creative destruction" (Schumpeter, 1912/1934).

Under the new definitions, identified in the literature, innovation is seen mainly as an introduction of new products or improves existing ones, but it also aims to identify new methods of implementing new business processes, both primary and auxiliary. If we talk about innovation, we also refer to "production systems, the management subsystems, introducing a new organizational structure or improving the existing one, with emphasis on hierarchical relationships and dependencies in the sphere of information, competence, responsibility or decision, the introduction of a new organizational culture or improving the present" (Grabar, Pachura, Modrak, Bunaciu, 2011).

The definition given by the European Commission identifies innovation as a 'conversion of new knowledge into economic and social benefits, as a result of complex interactions between multiple actors in a system consisting of an environment (local, national, regional one) containing firms, research institutions, funders, and networks by which all these elements manage to get in touch (European Commission, 2002). The latter emphasizes the materialization of an idea into a "commercial success", but it involves a complex process, especially since the innovation is seen as "a special business instrument, applied in order to introduce new solutions or new services" (Durlik 1998).

Innovation can also be regarded as an element that generates competitiveness, holding a vital role in shaping an organization's market position, especially the position next to the competition, but also assuming the role of "creating prosperity" (according to Gary Hamel, in Ciobanu, Ciulu, 2010). Current competitive environment requires frequent changes, companies have to transform innovation into a continuous process, the desire to create prosperity and positive results. Given the challenges imposed by the economic crisis, we can identify the category of SMEs as organizations that have features such as "openness, active spirit and dynamic characteristics", especially given the conjecture that determine a continue adaptation of products, services and hence the entire business of the company to new market trends.

SMEs are the "engine" of the economy in Romania, but also in Europe, "representing a key factor for growth, innovation, employment, labor and social integration", the small and medium enterprises having a number of specific features, which are representative for the current economic context dominated by the effects of the global crisis. In Romania, public policy assigns due importance of the SME sector by implementing various tools, supporting either directly (through national or European funds), or indirectly by determining a favorable regulatory framework. The SME sector in Romania has a number of features, by which can be particularly different than other member states of the European Union. According to UNIDO, "in terms of employment, domestic SMEs are in line with the European average share of about two-thirds of the total, however, there is a problem regarding SME contribution

to gross value added, which in Romania is approx. 54 %, while considering the EU is closer to 60 %" (UNIDO, 2005).

This is mainly explained by the fact that SMEs represent the "overall level of economic disparities of a country compared to the European Union level, but so far there is no structural analysis to decompose the causes of these gaps through the judicious contribution to the development of the SME sector economic (...), most countries being based on the dynamism and resilience to risk of private companies" (United Nations Industrial Development Organization (UNIDO), 2005).

Definition of SMEs in the literature and also those offered by official entities, intersect in a number of common points. OECD (2005) defines SMEs as "companies with subsidiaries, independent, with a small number of employees. The number of employees varies from one country to another, the upper limit being 250 employees for the European Union", noting that "some countries have adjusted the limit to 200 employees, while the United States include in the SME category companies that have less than 500 employees". The limits place in the category of small firms the ones with fewer than 50 employees, while microenterprises are those with fewer than 10 employees. This definition of SMEs, however, was amended by the European Commission, which from the 1st of January 2005 completed the list of characteristics with new features, including more pronounced financial limitations: "the turnover of medium-sized companies (50-249 employees) does not exceed 50 million euro, while for small enterprises (10-49 employees), turnover does not exceeding 10 million. The same indicator considered for micro enterprises (companies with less than 10 employees) must not exceed 2 million euro" (according to the European Commission).

In Romania (Buglea, 2010), firms are classified according to the criteria concerning number of employees, the net turnover or total assets being as specified by Ordinance no. 27/2006, amending and supplementing the Law no. 346/2004 on stimulating the creation and development of small and medium enterprises, approved by Law no. 175/2006 :

- Microenterprises - have up to 9 employees and an annual turnover or total assets net of up to 2 million euro, equivalent;
- Small enterprises - have between 10 and 49 employees and an annual turnover or total assets net of up to 10 million euro, equivalent;
- Medium-sized enterprises - have between 50 and 249 employees and an annual net turnover of 50 million equivalents in lei or total assets not exceeding the equivalent in RON of 43 million euro.

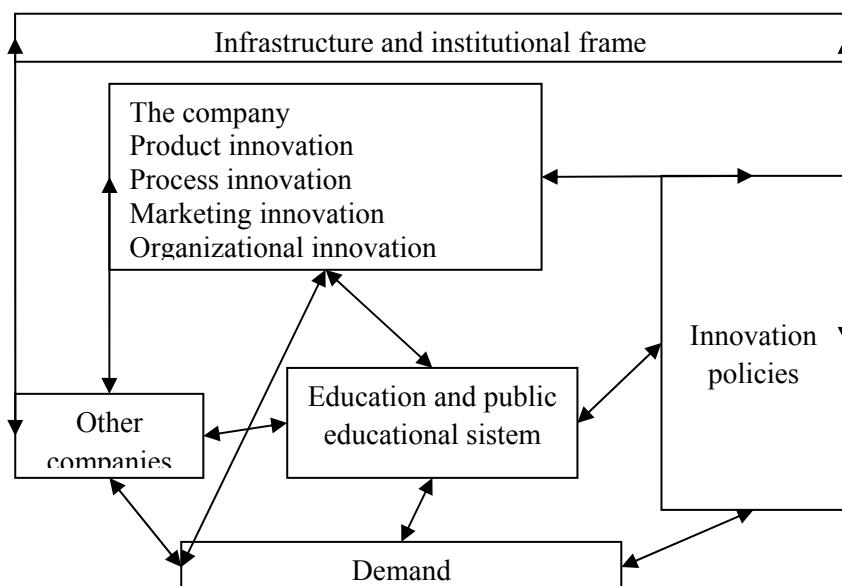
"Beyond quantitative arguments, SMEs are the engine of economic growth because most of them are characterized by dynamism, flexibility and innovative power, being able to quickly seize market trends and adapt on the fly to changes in the economy" (Pîslaru et al, 2012). In support of this idea comes the European Commission arguments, expressed in the Annual Report on SMEs, ideas which summarized reveal that SMEs have the major contribution to the implementation of the objectives regarding the overall economy for the following reasons:

- they have a low magnitude in size, which reduces bureaucratic issues, there are encouraged close relations and imposing the control is easier;
- they are more adaptable to changes, generate jobs;

- they are more inclined to promote flexibility;
- they constitute the pillars in the shade of large enterprises;
- they offer greater possibilities for professional development.

As a state member of the European Union, Romania has expressed concerns regarding innovation, trying to align to external standards, the measures discussed being represented mainly by national and European programs, in order to support the SME sector to encourage investment in research, development and innovation.

"Innovation in firms is central and largely relates to planned changes to improve overall performance" (OECD, 2005), innovation as a system having the starting point within the organizations, as illustrated below:



Source: *The Regional Innovation Strategy of Western Region Romania, 2009-2013*

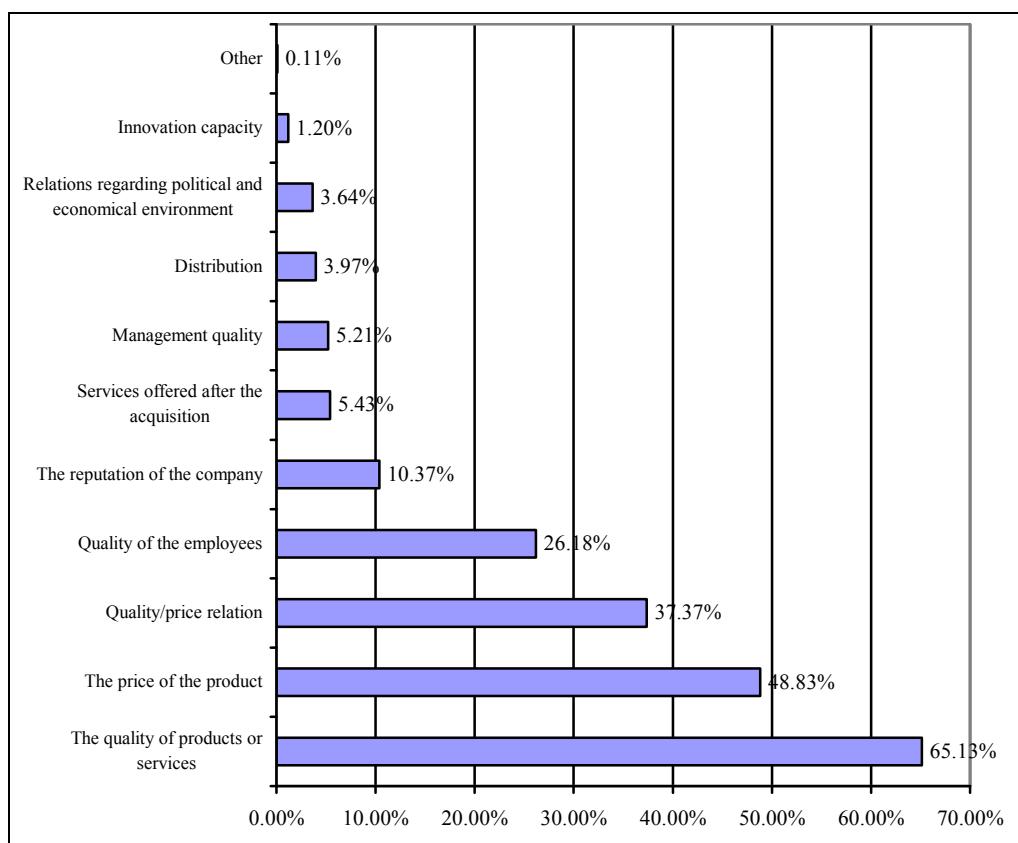
Figure 1. Innovation as a system

The manifestation of the phenomenon of innovation varies depending on a number of criteria, including scope, type of organization or region to which it belongs. Overall, the importance of innovation was synthesized by an Economist Intelligence Unit study (2008) by the following coordinates:

- Innovation is the key to sustainable growth in the medium-developed countries, it is not sufficient just an imitation of innovations developed by others;
- Despite massive foreign investments that have implemented technology and know-how, this has not resulted in a similar growth in the national economy;
- In the past five years innovation in the countries of Central and Eastern Europe was modest compared with the developed countries of the EU, and this trend continues to maintain;
- A part of the local SMEs have shown that successful innovation and export are possible despite the lack of brand recognition abroad.

2. THE IMPACT OF INNOVATION UPON ROMANIAN SMEs

The evolution of these businesses also depends on a number of factors that must be considered, including the need to develop and implement strategies, both on short and long term, although a more careful analysis of this issue reveals that in most cases (55.40 %), companies do not develop strategic plans. 38.54 % of companies achieved annual plans and strategies, while only a small proportion of SMEs (6.06%) carry out long-term planning activities. This is still a necessity, if it is desired an enhancement of the competitive advantages of firms. According to the White Paper of SMEs in 2013, the main competitive advantages of an enterprise are the following aspects:

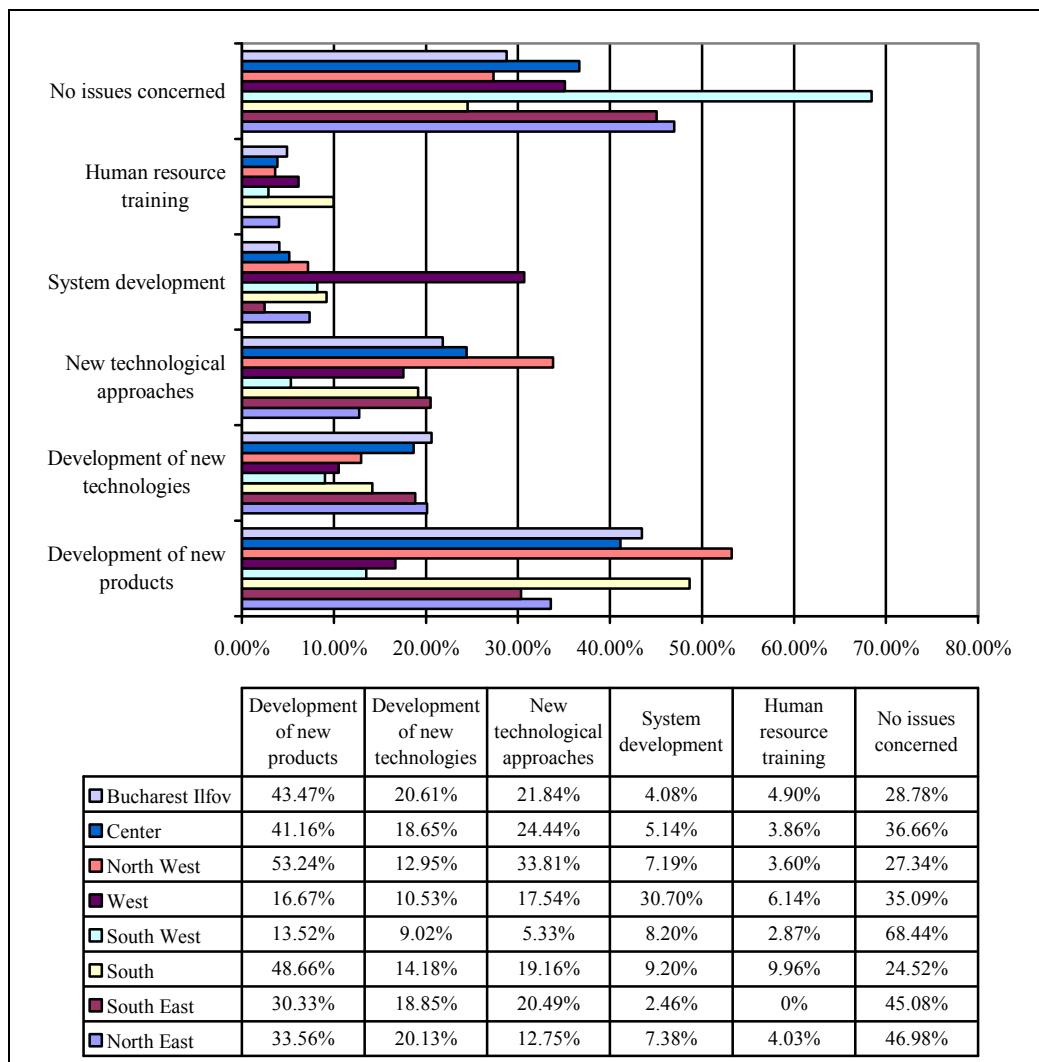


Source: White Book of SMEs, 2013

Figure 2. Competitive advantages of SMEs

We therefore observe that an enterprise identifies harder the innovation as competitive advantage, the percentage is only 1.2%, and if we perform an analysis taking into account the age of the firms, we find that at the beginning of the activity (0-5 years) and those that have exceeded the activity of 15 years are more receptive to identify their capacity for innovation as competitive advantage (1.41 % and 1.43%),

while only 0.38% of firms with an activity between 10 and 15 years usually do this. In terms of regional issues, the innovation capability distinguishes the strong competitive advantage only if the West Region (5.26%) while in the other regions, the values are much lower, reaching even 0% in the South East. In terms of business size, small enterprises demonstrate a higher capacity for innovation (2.25%), in opposition to the medium sized ones (1.52%) or even microenterprises (0.99%).



Source: *The White Book of SMEs*

Figure 3. Main concerns of SMEs in the field of innovation

A careful analysis of the innovative activity within an enterprise has gained greater importance over the last decades, within a stronger shaping of a knowledge

society and a knowledge-based management. Also noteworthy is that innovative activities within an organization are classified according to their nature or categories that are included. Thus, according to the study by the Council of Private Small and Medium Enterprises, "innovation efforts within SMEs focused primarily" on the following aspects: human resources training (4.76 %), upgrading system (7.6%), new technologies (16.45%), management and marketing approaches (19.51%), new products (37.21%).

Important to note however is the fact that about 38 % of companies say they do not carry out innovative activities at all. If we consider the age of the firms in the business, the latter percentage is maintained on average, be it new businesses that are on the market for less than five years, whether we refer to the more established organizations. By comparison, the innovation activities within these SMEs can be analyzed at the regional level, being able to perform a number of comparisons according to each criterion innovation effort.

Thus, if we speak of the effort focused on developing innovative new products, we face different situations from a region to another, higher values being found in the South (48.66 %) and North West (53.24%). Efforts to develop new technologies, as well as other activities moreover, are lower than those directed towards product development. In this way, we identify a uniform tendency of regions to align the same approach to this issue. An exception is the West region, which pays attention to system modernization (30.17%), while the corresponding percentages than other regions exceed 9% for the highest percentage, while reducing their efforts towards the development of new products to 16.67 %.

Depending on the size of firms, we find that microenterprises focus mainly on developing new products (35.89 %), and less on human resources (3.74%) or system upgrade issues (6.74%), the trend being maintained also regarding small and medium sized enterprises, the difference being the fact that the weights assigned to each of these categories is 41.51% and 50% for new products, 8.30 % and 13.64 % for training of human resources and 9.81 % and 18.18 % when referring to the system upgrade.

There are also cases in which innovation is not a constant activity within the organization, fact which is more prevalent in the case of microenterprises (40.83 %), than in other cases (26.79 % of small businesses, 9.09 % of medium sized enterprises). Innovation is also harder accepted by entrepreneurs who have only basic training or studies, it is not found in 7.43 % of cases, the percentage decreased with the identification of a higher level of training. When referring to entrepreneurs with elementary studies, we see that they are not interested to implement new approaches to management or marketing, or for upgrading or professional development system, being inclined towards product development or introduction of new technologies. The percentages vary from the other two categories, those of entrepreneurs with secondary and higher education and directing their attention to other innovative activities. The shares of investment devoted to innovation vary from one enterprise to another, as from one region to another, as follows in table 1.

Modalities of accomplishing and implementation of innovation within a company can take many forms, which, according to the study conducted by the National Council of Private Small and Medium Enterprises are represented mainly by

the individual conduct of research - development (40.52 %) but also to adapt the innovations initiated by other organizations (30.05 %), taking them over (21.95 %), cooperation with other organizations regarding research and development (7.48%). In table 1 we can identify two trends that are uniform across all regions, namely: on the one hand, we note that in most cases, there are not allocated more than 76 % percent, except in North West and Central Region (0.69%, or 0.63 %), but also the tendency is to not allocate any percentage of the innovation activity (percentage of 0 % being identified in the case of 33-57 % of companies).

Table 1. Share of investment devoted to innovation

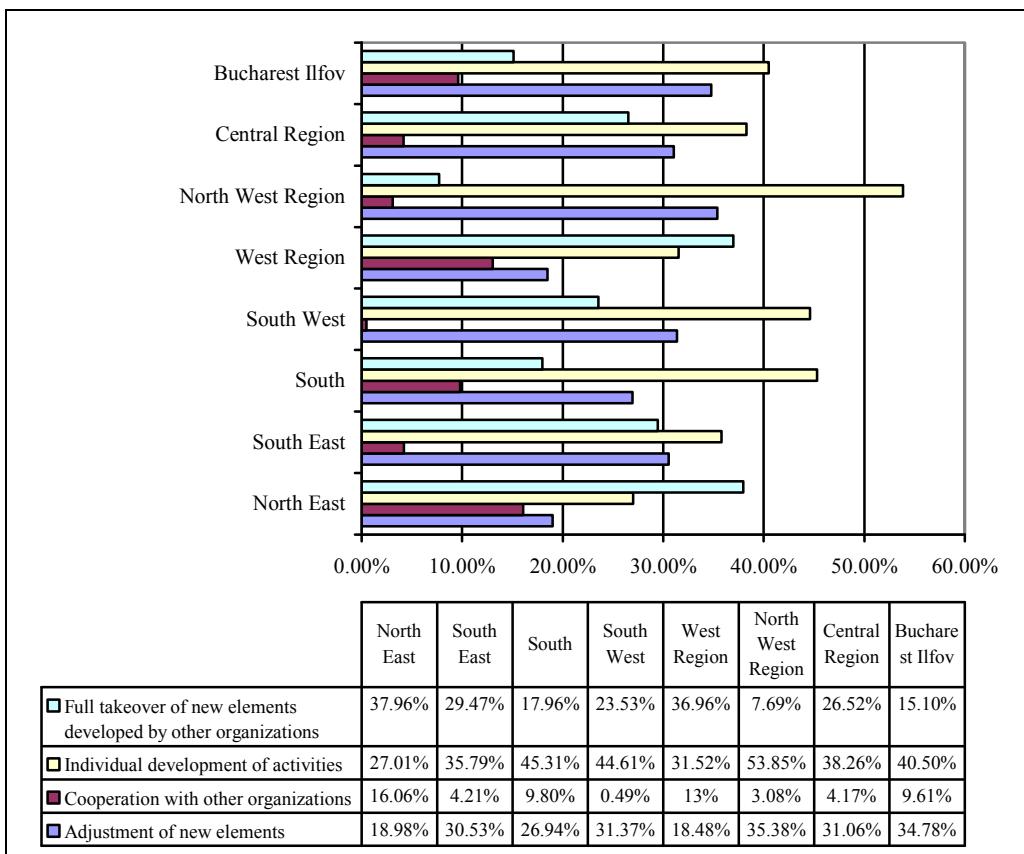
No	Percent of investment dedicated to innovation	North East Region	South East Region	South Region	South West Region	West Region	North East Region	Central Region	Region of Bucarest Ilfov
1	0%	54,97%	57,38%	39,25%	53,69%	38,60%	33,10%	45,11%	42,34%
2	1-5%	11,26%	20,49%	24,91%	20,90%	22,81%	40%	23,97%	32,26%
3	6-10%	15,89%	14,75%	20,00%	16,80%	13,16%	13,79%	18,93%	16,13%
4	11-20%	4,64%	6,56%	9,43%	4,51%	7,02%	8,28%	7,26%	6,65%
5	21-50%	9,93%	0%	4,15%	3,69%	15,79%	3,45%	2,84%	2,22%
6	51-75%	3,31%	0,82%	1,89%	0,41%	2,63%	0,69%	1,26%	0,40%
7	Peste 76%	0%	0%	0,38%	0%	0%	0,69%	0,63%	0%

Source: The White Book of SMEs

At the regional level, taking elements of integrated innovation designed by other organizations is mostly common in the North East (37.96 %) and West (36.96 %) and the least in the North West (7.69 %). This last region maintain appropriate conduct but a high percentage of individual activities (53.85 %), with moderate variations in other regions in terms of this indicator. Cooperation between organizations is the least accepted and adopted by firms in all eight regions, the rate to peak in the North East (16.06 %), while in the South West does not exceed 0.49% hit rate.

Considering the size of firms, we find that microenterprises focus mainly on the conduct of individual research and innovation, putting less emphasis on cooperation with other organizations (only in a proportion of 6.93 %). Small individual focuses on the development of activities (36.63 %), but to an extent close to the percentage allocated to adapt the innovations initiated by other organizations (32.51 %). Innovation through cooperation with other organizations is the least accepted, not only by microenterprises, but also by small (10.70 %) and medium ones (6.45%), the latter mainly aiming adjustment and modification of the innovations initiated by other organizations (35.48 %).

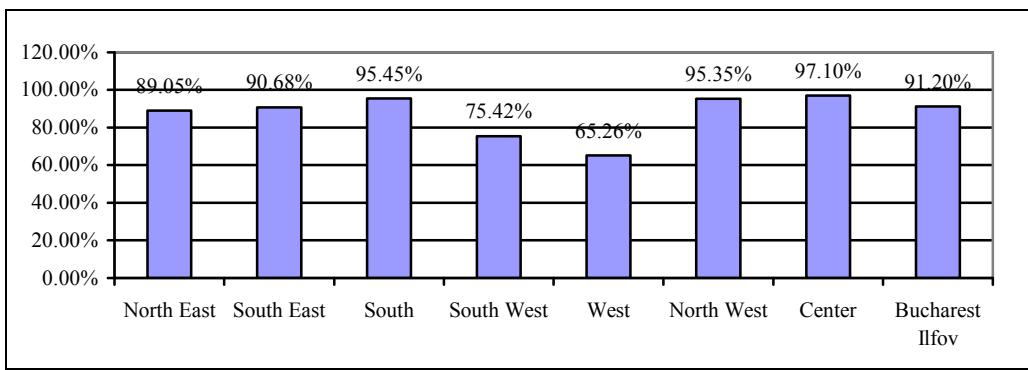
Although they have been identified as essential within the development of a society based on knowledge, research and innovation require investment. The main sources of funding that can be identified in this respect are mostly SMEs own (at a rate of 89.24 %), followed by bank loans (18.97 %), EU funds financing (5.83 %), as well as other types of grants, in a lower proportion, even less than 1 %.



Source: *The White Book of SMEs, 2013*

Figure 4. Ways of applying innovation in Romanian enterprises

Regional analysis shows that all regions remain above trend, their own sources being found first, the small regional variations, as follows:



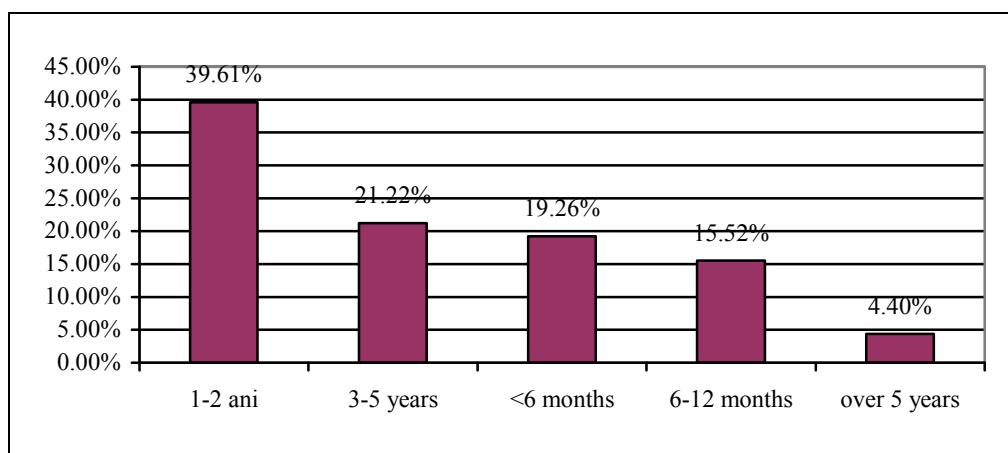
Source: *The White Book of SMEs, 2013*

Figure 5. Regional fluctuation of own financing sources

The highest percentage of own resources dedicated for financing belong to the Central, North West and Southern Regions, while the Western region ranks last with 65.26 % allocation. In the latter case, however, as well as in terms of the South West, we observe a higher share of investment from bank loans (27.37 % and 32.63 %), other regions accounting for this category investment from 10 to 22%. Funds from local authorities are lacking in most regions, except the center (0.35 %) and Bucharest- Ilfov (1.13 %).

Although since joining the European Union, funds for investment have increased and can be attracted through financing schemes, it remains a fairly low percentage in most regions, ranging between 3 and 7 %. The only region where we identify a higher percentage is South West with 13.14%. EU funds to finance innovation activities were especially attracted by medium enterprises (13.33%), less by the micro (5.03 %) or small ones (8.37 %), this trend being maintained for the other sources of funding also, the weights for medium enterprises exceeding the others.

The recovery of these investments is viewed differently depending on the company, the assessment of the optimal duration is performed according to the following schedule:



Source: *The White Book of SMEs, 2013*

Figure 6. Recovery of investments in innovation activities

3. CONCLUSIONS

Research and innovation, as well as other management activities, face a number of barriers, of which the study developed by the National Council of Private Small and Medium Sized Enterprises identified the following:

- High cost of operations;
- Insufficient funds;
- Uncertainty about the demand for innovative products;
- Difficult access to information;
- Lack of long or medium term forecasts;

- Rigidity of the eligibility of projects funded through public schemes;
- Difficulty in finding partners for cooperation;
- Difficult access to information on new technologies;
- Problems with the quality of human resources.

Addressing in particular to SMEs, understanding the dynamism with which they act, and states understand their difficulties related to the innovation process - lack of capital, the specialists - and provides significant financial incentives and research teams to boost these firms to innovate.

Creating "innovative enterprises", giving tax cuts to certain periods of time, preferential loans, creating funds 'risk capital' are just some of the measures that European countries which already apply and Romania, willing encourage innovation, you have to learn them.

The complexity of the innovation process and one of the important features that it should have - speed of response - economists turned their attention to the small and medium enterprise, enterprise characterized by greater openness to the new, dynamic, active spirit of competition. It is observed even in the case of Romania, the emergence of enterprise products, processes and services less developed in the past and begin to have all major market segments: the case of representing horizontal auto equipment, information technology included in the product, equipment health, energy, specialized services, all characterized by the "high-tech".

In determining the impact of innovation activity over the dynamics of small and medium sized enterprises, it also requires consideration of the influences that may cause a negative development of activities in an organization. Studies prepared by the National Council of Private Small and Medium Sized Enterprises identify as the most significant threat to businesses the following phenomena: a worldwide economic crisis (69.05 %), followed by the development of the legislative framework, thought to influence the SMEs in a proportion of 48.28 %, but also the inefficient anti-crisis measures taken by political representatives (35.79 %) and corruption, bureaucracy or instability phenomenon of business, each of these showing less influence, between 20 and 29%. Each of these expose a contextual development, representing variable phenomena that in an unstable economic environment can lead to stagnation or even an economic decline, especially when discussing small and medium sized enterprises.

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