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# THE IMPACT OF ICT ON THE PERFORMANCE OF SMES IN ROMANIA VERSUS THOSE IN THE BUCHAREST-ILFOV REGION

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## **Abstract**

*The role, place, performance and importance of SMEs in the economic activity regarding Bucharest-Ilfov Region, as well as the correlated analysis with the ICT impact on SMEs in Romania is essential for substantiating policies of combating future economic crises. Innovation is the key to a strong and sustainable development with a high success rate in fighting economic crises. The comparative approach aims to present the SMEs degree of innovation according to the nature of the activities and the method to achieve them. This situation regards the ICT evaluation in the SME sector over a 2-year period (2014-2015). In order to quantify the real situation regarding the impact of ICT on SMEs in the two selected years, we have considered a relatively small number of indicators, the most relevant ones, which should highlight the economic evolution of SMEs.*

**Keywords:** *innovative activities analyzing, comparison, research and development.*

**JEL Classification:** D83, M13, M51, P25

## **Introduction and Literature review**

Even if at first glance the stake on innovation in a period marked by global recession may seem like capital wastage, studies show that start-up SMEs have managed to fight the economic crisis. Sales increased and operating profit remained well above turnover. Innovation is very much in line with the management style and the means used, the planning of internal resources especially when the economy is no longer on the highest heights

Adapting and analyzing the opportunities of a new environment is preferred in return for resistance and approach to a defensive attitude.

According to Teodor Cimpoesu, Manager Director for Romania and Bulgaria, the manufacturer of Kaspersky Lab's IT and security solutions, „[...] a company that just chooses to survive is just like a shipwreck in the middle of the ocean, which is just about standing and waiting to be rescued by the first ship passing through the area. [...]. Most of the time, it is advisable to try to swim, even if the waters are turbid, and you may find a patch of earth that will

bring you back and give you the chance to start something new. „ Practically, the manager’s message from this multinational company describes a thorough market analysis and identification of opportunities for development and adaptation. Innovation is a continuous and adaptable process.

Stimulating innovation in Romania’s SMEs is a very important element in ensuring a sustainable convergence process. Innovation covers both products and services as well as new technologies, ITC systems and new management and marketing approaches.

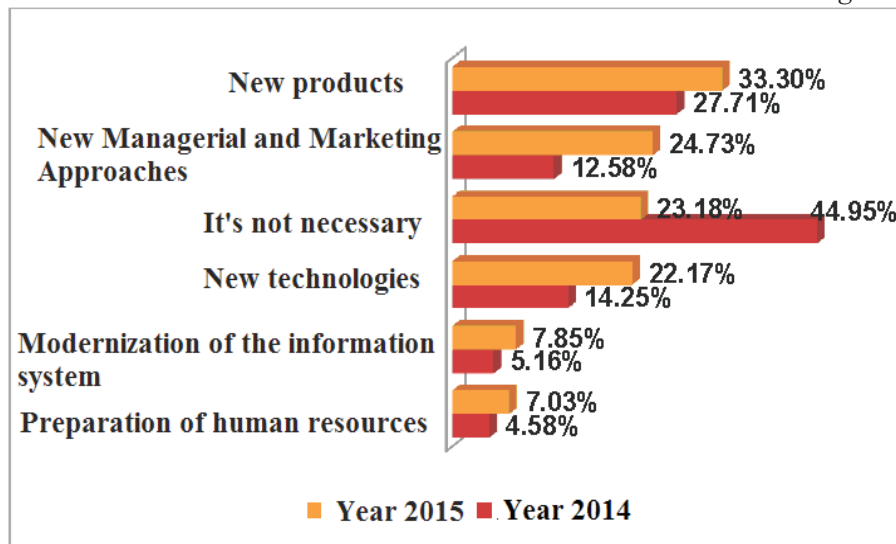
### Research methodology, data, results and discussions

The innovation efforts of SMEs in Romania during 2014-2015 focused mainly on new products (33.30%), new management and marketing approaches (24.73%), new technologies (22.17% ), The modernization of the information system (7,85%) and the preparation of human resources (7,03%).

According to Figure 1, a positive evolution of innovative companies over the previous year can be observed: increasing the share of new technology options, new products and management and marketing approaches, and reducing the incentive to invest in upgrading the information system. In other words, companies that have carried out innovation activities have seen increases and fewer maintenance costs.

**The nature of innovative activities in SMEs in Romania**

*Figure 1*

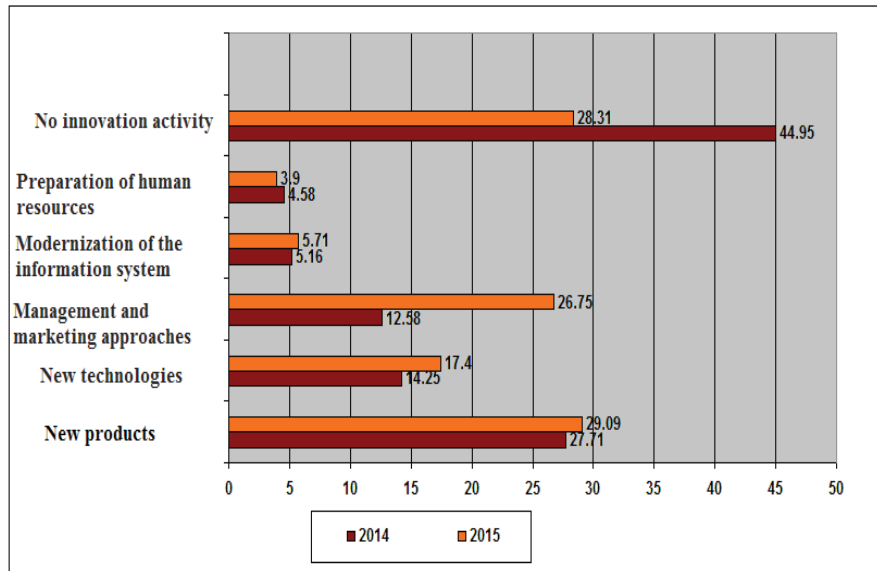


Source: National Council of SMEs in Romania, 2016

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## The nature of innovative business activities in SMEs Bucharest-Ilfov region

Figure 2



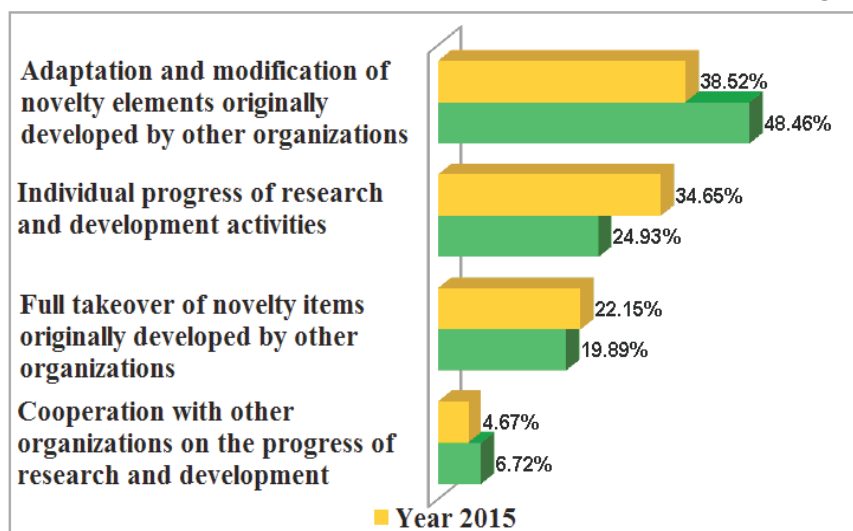
Source: National Council of SMEs in Romania, 2016

In Bucharest - Ilfov Region, during the same period, we can see that the SMEs also focused on new products (29.09%), new management and marketing approaches (26.75%), new technologies (17, 4%), computer system upgrading (5.71%) and human resources training (3.9%). According to Fig. 2, the positive evolution of innovative companies is preserved compared to the previous year. The national trend has also been preserved in the Bucharest-Ilfov Region, more exactly for those that have carried out innovation activities have seen increases and fewer maintenance costs.

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### How to achieve innovation in SMEs in Romania

Figure 3



Source: National Council of SMEs in Romania, 2016

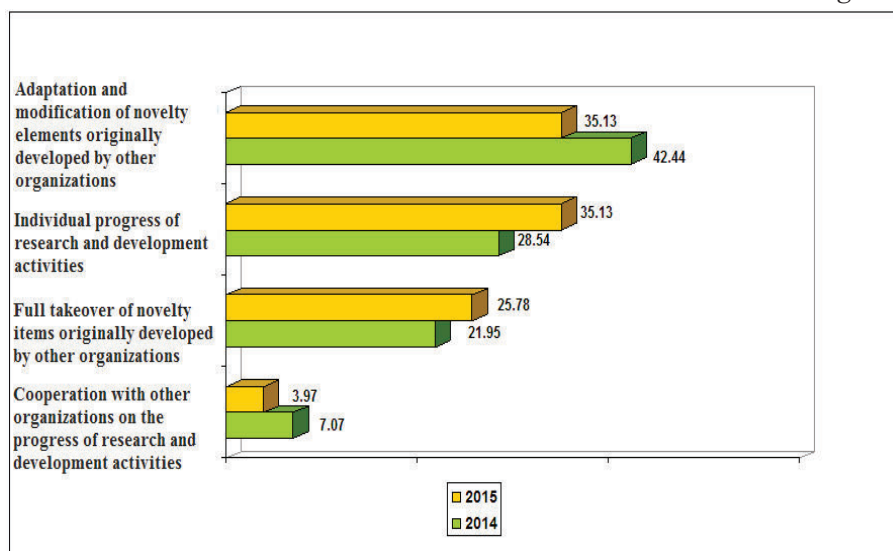
The main ways of accomplishing within SMEs are the adaptation and modification of the novelty elements (38.52%), the individual development of the research and development activities (34.65%), the full takeover of the novelties developed by other organizations (22.15%) and cooperation with other organizations on C-D activity (4.67%).

In comparison, the following major changes can be observed: decrease in adaptation and change of novelty items, increase of the percentage of SMEs that take over the novelty elements for the development of the organization as well as the increase of individual C-D activities, but also the reduction of cooperation activities with other organizations in the field of research and development.

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## How to implement innovation in Bucharest-Ilfov region SMEs

Figure 4



Source: National Council of SMEs in Romania, 2016

The main ways to achieve in SMEs in Bucharest-Ilfov region are the adaptation and modification of the novelty elements (35,13%), the individual development of the research and development activities (35,13%), the full take-up of novelty elements developed by other organizations (25.78%) and cooperation with other organizations on C-D activity (3.97%).

In this region, the following major changes are noticeable: decreasing the adaptability and change of novelty items from one year to another, increasing the percentage of SMEs that take over all the novelty elements for the development of the organization as well as increasing individual C-D activities but also reducing activities of cooperation with other Research and Development organizations.

### Conclusions

After analyzing the data on sales of goods in other countries, registered by Romanian SMEs, it was found that innovative enterprises have sales of about 4% higher than traditional ones. Based on this result, we can say that companies that have invested in product and service innovation have earned higher profits than traditional SMEs. Thus, services that are better suited to the needs of their customers have been created, which subsequently led to an increase in demand.

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Also in the chapter of goods sales on the national market, innovative enterprises have considerably better results than traditional ones. The sales volume of innovative SMEs is 3% higher than traditional policy-driven SMEs. Favorable results for innovative companies were also recorded on the local / regional market, with higher sales of 4% compared to traditional SMEs.

For activities in other European Union countries, there is a particular sector in which innovative SMEs have distanced themselves considerably from traditional ones. In the field of water distribution, sanitation, waste management and other decontamination activities, the technologies used by innovative SMEs have increased sales by 20% more than traditional SMEs.

Taking into account these results, it can be stated that it is increasingly necessary to implement a policy to stimulate innovation in Romanian companies as well as Research and Development activities.

A rational purpose for any state is to build a knowledge-based economy. It represents the road to competitiveness, growth and prosperity. But one is to target such a bold goal and another thing is to realize it.

For a country as Romania, which is still struggling to reach the market economy, at a first glance, it may seem inappropriate to talk about innovation and knowledge. How can we think of innovation-boosting strategies if the structural fundamentals of the economy are still shaky?

Structural reforms are steps that should be taken in turn, first by focusing on the process of economic transformation, and then trying to raise the level of economy competitiveness. Only then, on a healthy economic background, the need for innovation and technology transfer would naturally occur.

Companies need not only to achieve the necessary degree of awareness regarding the need for innovation, but especially to take concrete steps to develop their skills. Innovation implies specific capabilities (such as capturing the opportunities offered by the market in connection with technological developments, identifying technical solutions, assessing the cost-benefit ratio and presumed risks, identifying the necessary resources, emphasizing the role of ICT and highly qualified people, etc.), skills to be gained at the level of employees, managers, or incorporated into the company's organization.

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