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Entrepreneurship and SMEs Innovation in Romania

Nelu Eugen Popescu [a,*]

[a]*Lucian Blaga University of Sibiu, Faculty of Economic Sciences, 17 Dumbrăvii Avenue, Sibiu 550324, Romania*

Abstract

The aim of this article is to present some theoretical connections between entrepreneurship, innovation and small and medium medium-sized enterprises highlighting the role of these business for the economic recovery. It will provide a brief overview of the CNIPMMR study pointing out data about Romanian SMEs innovation activities and use of information technology in such enterprises. Some recommendations for public policies are presented at the end of the paper.

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Keywords: Entrepreneurship, Innovation, SMEs (Small and medium enterprises)

1. Introduction

Entrepreneurship is a term that does not have an general accepted definition, the concept evolved over time from Cantillon (1775), to whom the first academic mention are attributed, to Schumpeter and its creative destruction theory to recent and more modern theories. Peter Drucker argued that "entrepreneurs innovate and innovation is the specific instrument of entrepreneurship. He defined entrepreneurship as "an act of innovation that involves endowing existing resources with new wealth-producing capacity" (Drucker, 1985)

Innovation is usually associated with doing something new or different (Garcia & Calantone, 2002). The concept of innovation is defined as "the implementation of a new or significantly improved product or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD, 2005). Innovation is considered to be a key element for technology adoption and creation and it contributes to explaining the differences in productivity at individual, national and regional level. (de Mel, McKenzie & Woodruff, 2009).

* Corresponding author.
E-mail address: eugen.popescu@ulbsibiu.ro (E. N. Popescu)

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The starting point for most theories of innovation is the firm (Audretsch & Thurik, 2001). Early innovation studies focused their attention usually on large companies and SMEs were overlooked in spite of the fact that these small and medium firms represent the vast majority of enterprises in most developed and developing country economies.

Both entrepreneurship and innovation are 2 broad concepts without a unanimously accepted definition and are regarded as overlapping concepts (Stam, 2008). The connections between these 2 concepts dates back to the first Schumpeterian theory about entrepreneurship were the entrepreneur was seen as the personification of the innovation (Hagedoorn, 1996), and through innovation and creative destruction the economy evolved. The connections between entrepreneurship, innovation and small firms has been studied over time by various scholars and some even defined entrepreneurship as follows "innovation by newly formed independent firms (Kirchhoff, 1994)

The recent economic downturn is regarded as one of the worst since the 1930s crisis and its effects are still evident all over the globe and parts of the world still struggle to recover.

After a period of few years marked by economic incertitude at EU level, economic indicators show a slight increase and the past year (2013) could represent a turning point for the EU economies if the positive upwards trends will manage to continue.

The EU Commission and Romanian government have adopted and implemented measures to avoid an economic collapse, but economic and competitiveness growth is improving slowly.

According to the EU Commission SMEs can play an important role in the economic retrieval (recovery), the contribution of SMEs to job creation and value added constitute a large share of both EU and Romanian economy. As stated in the European Commission annual report on SMEs 2012-2013 at European level over 99% of all enterprises are SMEs, around 20 million SMEs, most of them are micro-enterprises, and in 2012 employed over 86 million people providing for 66,5% of jobs from the total employment and contribute more than half of the total added value created by businesses. (Gagliardi et al, 2013). In Romania two thirds of the jobs are provided by SME s (31.11.2011) and contribute with 58% from the total added value as reported by the FPP (Fundaţia Post Privatizare – Post-Privatization Foundation) report (FPP, 2013). The number and importance of SMEs started to expand after the '80s in many types of industries, this growth in number and importance combined with employment problem and job creation by SMEs issues generated an interest in the study of entrepreneurship (Wennekers & Thurik, 1999).

Usually the attention and actions of policymakers and the business environment focused on large companies and overlook the importance of SMEs especially in connection to innovation. (as mentioned above). Observation made by Koellinger and Thurik suggest that an increase in the entrepreneurial activity is generally followed by a recovery of the economy and a decrease in unemployment (Koellinger & Thurik 2012) so a more analytic approach toward the role SMEs is required.

Most entrepreneurial initiatives start as SMEs rather than big companies and entrepreneurial small firms are considered to be the backbone of the economic system, ensuring an important part of employment and innovation (Acs and Audretsch, 1990).

Early theories regarded the small enterprises as being "outside of the domain of innovative activity and technological change" (Acs & Audretsch, 2010) but more recent studies showed that small entrepreneurial enterprises were as important as the large companies for innovation and for technological change.

In the actual economic environment due to globalization and ICT evolution products are more quickly out-dated nowadays in comparison with some years ago because "we are entering the era of the young firm." (Jovanovic, 2001) and small firms are considered to be engines of innovative activity (Acs & Audretsch, 2010).

2. Data used

Data used for this article was collected and compiled by CNIPMMR (Consiliul Naţional al Întreprinderilor Private Mici şi Mijlocii din România – National Council of Small and Medium Sized Private Enterprises), information published in the White Charter of Romanian SMEs 2013.

The methodology used was a questionnaires based investigation and the sample size consisted of 1858 SMEs from all economic sectors, every type of business entities, all age groups and all 8 development regions in Romania. For the survey it was used an optimum allocation stratified sampling method.

3. Innovation and ICT use in Romanian SMEs (some facts and figures)

3.1 Innovation activities

According to the CNIPMMR, the data regarding the nature of innovation activities in SMEs show that most innovation efforts are headed (concentrated) towards creation of new products (37,21%) in 2012; followed by new management and marketing approaches with 19,51%. Romanian SMEs efforts on developing new technologies reached 16,45% and modernization of information systems 7,60% (figure 1).

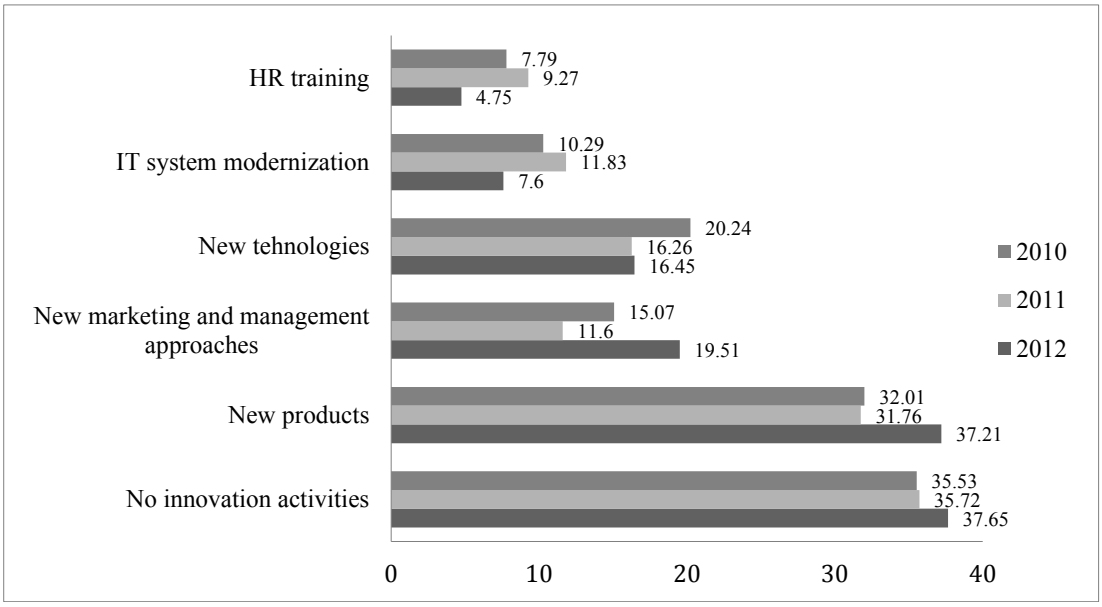

Figure 1: The nature of innovation in Romanian SMEs
Source: Own adaptation based on CNIPMMR data (2011-2013)

3.2 Innovation investments

In terms of share of investments allocated to innovation from the total enterprises investments almost half of SMEs (44,93%) have not directed funds to innovation (see table 1).

The lack of funds assigned to innovation investments combined with the fact that considerable part of the SMEs are not involved in innovation activities may present a serious problem for a healthy evolution of these enterprises.

Table 1: SMEs by share of investments allocated to innovation

SMEs	44.93 %	25.84 %	16.77 %	6.85 %	4.21 %	1.19 %	0.22 %
Share of investments Allocated to innovation	**0%**	**1-5%**	**6-10%**	**11-20%**	**21-50%**	**51-75%**	**> 75%**

Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

A bit more than a quarter of enterprises (25,84%) have allocated 1 to 5% to innovation and only 16.77% of the

enterprises allocated between 6 and 10% to innovation. Very few companies allocated over 51% (1,19%) and under 0.5 percentage of companies allocated over 75% to innovation.

These figures indicate that SMEs in Romania do not allocate sufficient fund to innovation activities and these may result in a low competitiveness in the regional and globalized market. Investments in innovation may lead to competitive advantage so the lack of funds or insufficient funds allocated to innovation is a real problem.

Table 2: SMEs by share from the turnover generated by new products/services

SMEs	46.39	21.47	16.83	9.33	4.37	1.46	0.16
Share from the turnover generated by new products/services	**0%**	**1-5%**	**6-10%**	**11-20%**	**21-50%**	**51-75%**	**> 75%**

Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

Taking into consideration the share from the company turnover generated by new products/services or renewed products/services introduced to market in the last year, almost half of the Romanian SMEs (46,39%) did not generated any revenue from new products/services (see table 2).

21,47% of the enterprises generated 1-5% form their turnover figures by new products and services, 16,83% from SMEs generated 6 to 10 per cent but a very small amount of companies (1,47%) generated from new products/services between 51 and 75% of their sales figure and under 1 per cent accomplished more than 75% of their sales by new products/services.

The figures also show that over 54% of the SMEs in Romania undertook some kind of activities to bring new products and services to the market or to renew their products and services, which is an encouraging fact the more than half of the Romanian SMEs work to improve their products and services.

3.3 Main approaches to innovation for Romanian SMEs

40.52% of all innovation activities in Romanian SMEs are carried out through internal (individually) R&D processes. Second option with (30.05%) is represented by adapting innovation and novelty developed by other organization and enterprises followed by integral absorption ("poaching") of innovation developed by others (21.95%). Only few enterprises (7.48%) think that cooperation with others is a viable approach to undertake R&D activities. (see figure 2).

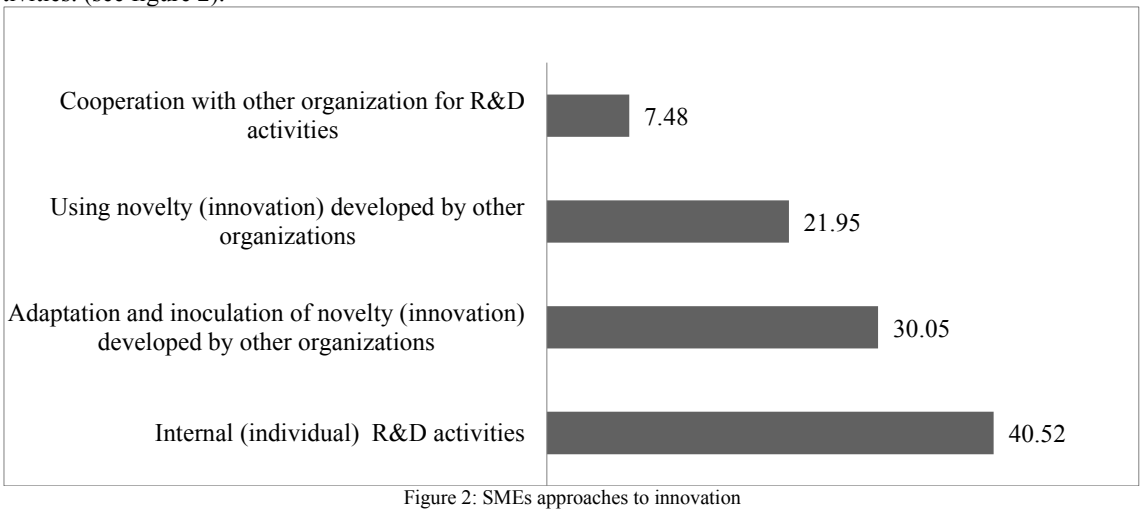

Figure 2: SMEs approaches to innovation

Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

According to FPP report there is a direct correlation between innovation in enterprises and their economic

performances, especially during the last years of economic downturn. Germania and Austria are the countries with the highest rate of innovative SMEs (around 80%) and at the bottom of these classification there are countries from Eastern Europe like: Letonia, Poland, Hungary, Lithuania, Bulgaria and Romania.

Under these circumstances the analysis reflects some minuses for our country SMEs innovative activities and performances. (FPP, 2013).

3.4 Main barriers for R&D activities in SMEs

A number of obstacles may limit entrepreneurship, the creation and development of innovative start-ups and SMEs, and by doing so it interferes with economic growth. Knowing and understating the obstacles to innovation for SMEs is important both to entrepreneurs/owners/managers but also to the government. Acknowledging the role and importance of these internal and external barriers may help in developing better strategies at firm level and more suite policies at national level in order to contribute to economic growth.

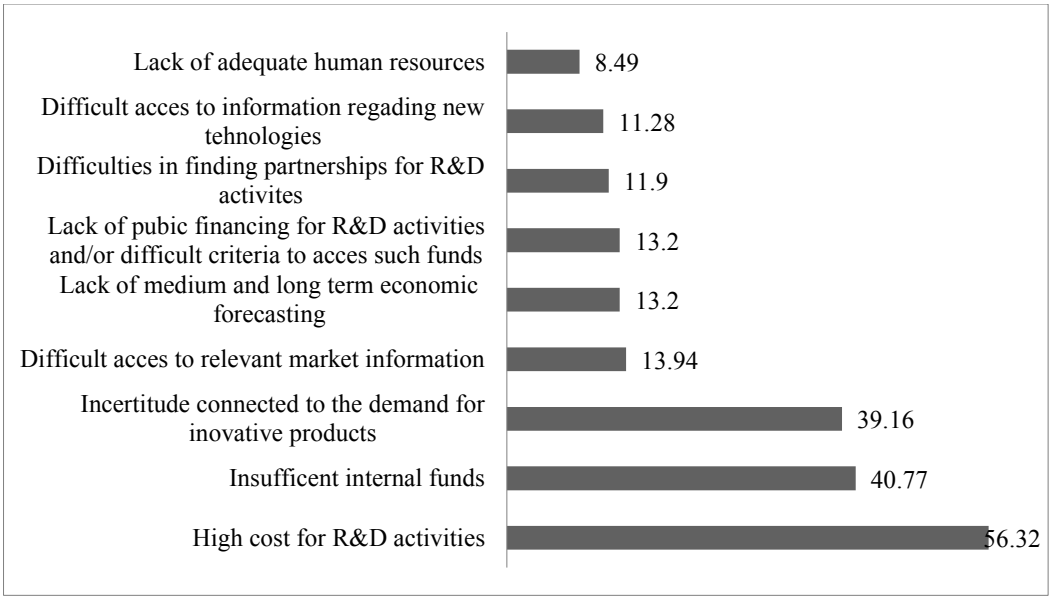

Figure 3: Barriers for R&D activities in Romanian SMEs
Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

In regard to the barriers to innovation entrepreneurs from SMEs mentioned the high cost implied by R&D activities (56.32%), not enough company funds for research (40.77%), the incertitude associated with the market demand for new and innovative products. Least mentioned was the lack of adequate human resources (8.49%) (see figure 3).

3.5 Use of IT in SMEs.

In the last decades the IT "revolution" changed the way business evolved and a trend that can be seen is represented by SMEs that became "vibrant agents of innovation" in many countries. (Leceta, 2011)
According to Internet World Stats (a Miniwatts Marketing Group initiative) in 2012 (June) there were over 9,6 million Internet users in Romania, which means a 44% Internet penetration rate, above the world rate (34,3%) but under the European rate of 63,2%. Next will present information about if and how the Romanian SMEs use IT.

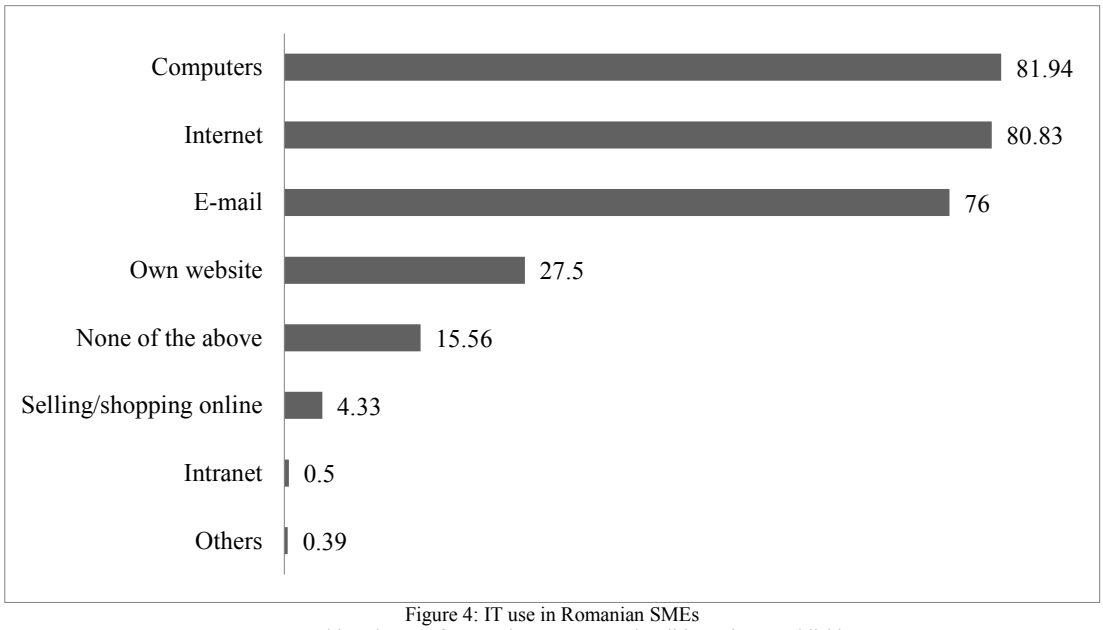

Figure 4: IT use in Romanian SMEs
Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

Over 80% of SMEs own (have) and utilize computers (81,94%) and access & use the Internet (80.83%) in their activities. Three quarters of SMEs use the electronic mail and a just over a quarter have their own website, but just 4,33% are involved in online selling and buying transactions and under 1 per cent of SMEs have intranet. In 15.56% of the SMEs have no IT facilities.

3.6 Use of Internet and Intranet in SMEs

The analysis of the purpose why SMEs use Internet & Intranet point out that in more than 75% of the companies' information technology is used for a better communication with customers and suppliers (see figure 5). A significant percentage of SMEs use the Internet for gathering information about the business environment in which they operate (67,17%). Over 50 percentage of SME use the Internet for online transactions, 45,71% use it for promoting their products and services and 39,50% for better communication inside their enterprises.

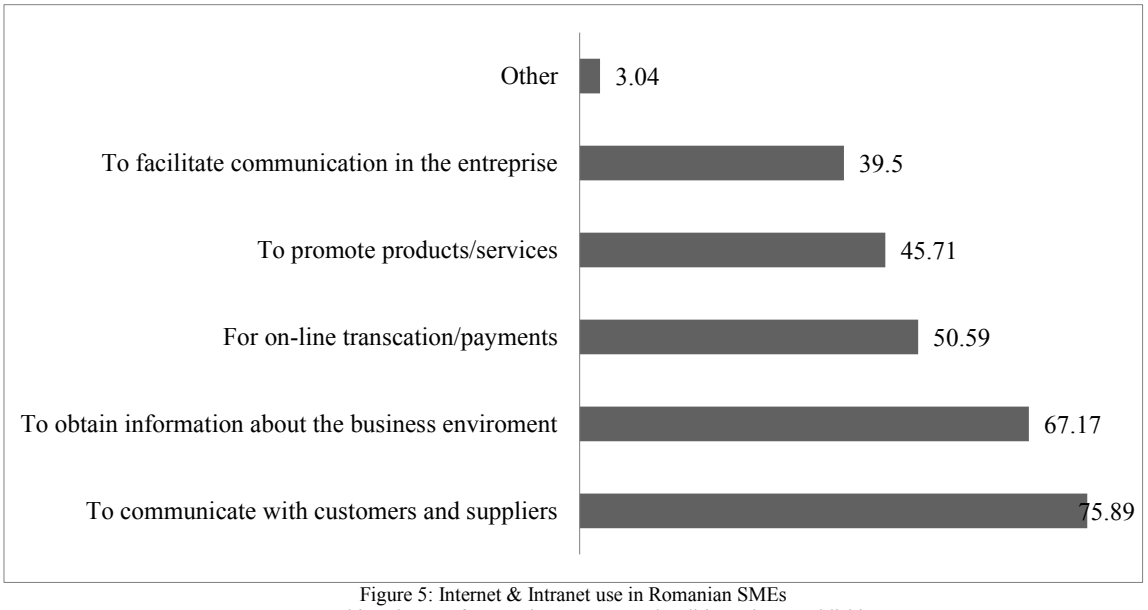

Figure 5: Internet & Intranet use in Romanian SMEs
Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

3.7 Perceived benefits of IT applications in business

Top benefits of IT application for their business processes in the Romanian SMEs vision are data security (48,44%), fast access to the enterprise data form anywhere and at anytime (38.21%) and regulatory compliance (35.84%). Least important benefits are regarded: better performance through optimized internal business processes (4.2%) and obtaining detailed reports of departments activities. (see figure 6).

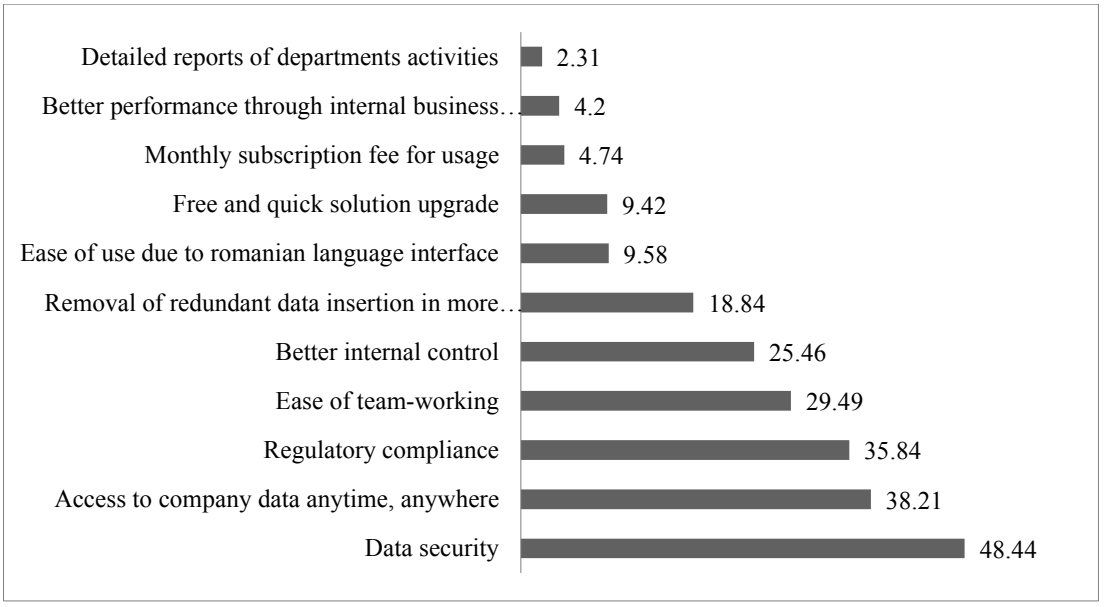

Figure 6: Perceived benefits of IT application in business
Source: CNIPMMR, White Charter of Romanian SMEs – 11th Edition, Sigma Publishing House, 2013

SMEs have gradually recognised the advantages that the use of IT can have over their activities. ICT adoption in SMEs offers benefits for a wide range of business processes; at firm level IT may provide a faster communication, a more efficient resource management and customer management. At inter-firm level the Internet may help reduce transaction cost and increase speed and reliability of transactions (OECD, 2004).

4. Conclusions

The economic downturn affected the SMEs in the whole world and through globalization the negative effects reached countries from all corners of the globe the and implicitly the Romanian economy was marked by the crisis. In the last period signs for economic recovery start to appear at European level and some contributors for these trend are the SMEs. Over the last decades scholars attention shifted from larges companies to small entrepreneurial firms which tare considered to play an important role in innovation activity and technological change.

Most SMEs efforts toward innovation headed to developing new products, new marketing and management approaches and developing new technologies. But a high number of SMEs in Romania mentioned that it is not involved in innovation activities (37.55%).

Two other indicators that underline the fact that Romanian SMEs do not take advantage of the innovation process are the share of investments allocated to innovation and the share of turnover generated by new products and services. A large number of enterprises did not allocated funds for investments in innovation (44.93%). Taking into consideration the share from the company turnover generated by new products/services introduced to market in the last year, almost half of the Romanian SMEs (46,39%) did not generated any revenue from these products/services.

The main obstacles in the way of innovation at SMEs level were: the cost of R&D activities, lack of funds (or insufficient funds) and incertitude about the evolution of demand for new and innovative goods.

Most SMEs use computers, Internet and the e-mail in their business activities and some of them even developed own websites (27.50%). Only in 15.50% of SMEs there are no IT structures. Usually enterprises use the IT application for communicating with customers and suppliers, to obtain information and for on-line transaction and payments. SMEs use IT application and find them useful, the benefits most mentioned where: data security, data access from anywhere and at anytime, regulatory compliance, team-working possibilities and better internal control.

Under these circumstances in which the SMEs sector is a potential key factor for future economic growth and new start-ups being more adaptable to the changing business environment the government efforts should sustain the creation and development of new innovative enterprises. Support should focus on collaborative R&D and easy access for all enterprise to research results and creation of new technology driven SMEs.

The Romanian national policy should take into consideration and implement the measures suggested by the Europe 2020 growth strategy. Efforts should focus on entrepreneurship and small to medium enterprises, innovation and competitiveness growth in order to attain a sustainable and healthy economic recovery in the long run.

Entrepreneurs usually embrace innovation an this may have positive impact on a countries economy by generating new jobs, creation of wealth and improving quality of life. As Wennekers and Thurik stated possibilities for economic growth, job creation and innovation can come from SMEs (Wennekers & Thurik, 1999) so ensuring a proper economic environment in which SMEs can develop and entrepreneurial initiatives could thrive is a condition for a national economic recovery.

Acknowledgements

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