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INNOVATIVE ACTIVITIES OF SMALL AND MEDIUM-SIZED ENTERPRISES IN SERBIA[1]

ABSTRACT

Small and medium-sized enterprises are the backbone of innovation in developed economies. In transitional countries small and medium-sized enterprises are becoming increasingly important for economic growth and development but are significantly lagging behind in terms of their propensity to innovate. The main objective of the paper is to perceive the attitude of Serbian small and medium-sized enterprises towards innovative activities in order to determine the type, the scope and the quality of these activities. This paper also aims at analyzing institutional support for enhancing SME innovation in Serbia. A set of recommendations for strengthening the capacity of small and medium-sized enterprises for innovative activities is provided. Furthermore, few possibilities for removing the main barriers to small and medium-sized enterprises' wider use of innovation and research are discussed in the paper.

Key words: small and medium-sized enterprises, innovative activities, attitude, institutional support, capacity, barriers

JEL Code: L26, M13, O31

INTRODUCTION

In today's global economy competitiveness of enterprises depends mainly on the ability to innovate i.e. bring new products to the market and make new cost saving improvements. Job creation and economic growth of national economies depends crucially on the ability to convert technological and scientific innovations into commercial and practical solutions. For that reason, creating a culture of innovation followed by incentives for strengthening the capacity of small and medium-sized enterprises (SMEs) for innovative activities has become one of the policy makers' key priorities.

SMEs are the engines of economic growth and employment in both developed and transitional economies. Due to their flexibility and ability to adjust to constantly changing market needs, SMEs are the backbone of innovation. They are considered to be the most important source of innovations and provide channels for the development of new technologies. However, SMEs are facing numerous barriers to innovation.

The main objective of the paper is to perceive the attitude of Serbian SMEs towards innovative activities in order to determine the type, the scope and the quality of these activities. This paper also aims at analyzing institutional support for enhancing SME innovation in Serbia. A set of recommendations for strengthening the capacity of small and medium-sized enterprises for innovative activities is provided.

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Furthermore, few possibilities for removing the main barriers to SMEs' wider use of innovation and research are discussed in the paper.

I INNOVATION AND INNOVATIVE SMALL AND MEDIUM-SIZED ENTERPRISES - SIGNIFICANCE FOR ECONOMIC GROWTH

Back until the mid-1950s it was generally believed that the output of the economy could be increased by adding more inputs, particularly capital, into the productive process. However, the rapid progress of industrialization in developed countries brought about the need to search for other more sophisticated sources of economic growth. Numerous researches (Abramovitz 1956, pp. 1-23) in the field of economic growth were conducted by using different methodologies. By measuring the growth in inputs (of capital and labor) and the growth in the output of the American economy over the 1870-1850 period of time, prof. Abramovitz showed that only about 15% of the actual growth of the economy was due to the growth of inputs, i.e. there was an unexplained residual of 85%. Soon after that Robert Solow, who was awarded the Nobel Prize in 1987 for his contributions to the theory of economic growth, showed that an increase in capital and labor account for only half of economic growth. The other half called the "Solow residual" he attributed to technological innovation. Consequently, the assumption among economists that capital and labor were the main causes of economic growth was no longer relevant.

The 21st century is characterized by the advancement of knowledge-based economy in which innovation, technology and information rather than labor and capital are becoming the most important sources of competitiveness. Innovation is the leading driver of economic growth and a fundamental prerequisite for achieving smart and sustainable development. Only new products and services or new ways of their production and deliveries create value and provide better living standards (Eric et al. 2011, pp. 61). It is high-quality research that will provide the knowledge and technology necessary for good health and the overall well-being of population, the environmental protection and the future competitiveness of economies.

Innovation can be defined as a process of transforming an idea into a good or service that creates value or that a customer is willing to pay for. As a mean to harvest fruits of scientific achievements, innovation requires much more than the ability to convert new ideas into commercial products. It requires financial resources, appropriate business skills, an adequate intellectual property protection system as well as enhancing entrepreneurial innovation activities. A culture needs to be developed that is dynamic and which fosters innovation as a key factor of economic growth and development.

Owning to their flexibility and ability to adjust in a much more efficient manner to constantly changing circumstances and market demands, SMEs have the ability to undertake innovative activities and commercialize innovation much faster than large enterprises. Because of their propensity to continuous innovation, these enterprises play a significant role in securing creative technologies. SMEs are considered to be the backbone of innovation in developed economies and an increasingly important factor in driving economic growth and creating quality jobs in transitional and developing countries as well. Innovative SMEs are SMEs which continuously seek for innovative activities and create value by improving existing products or services or producing and distributing new ones.

SMEs make the biggest single contribution to increasing employment and improving competitiveness, innovation and dynamism. It is widely assumed that the existence of a vibrant private sector in which businesses invest, increase productivity and create jobs contributes to economic growth. The contribution of SMEs to economic growth of national economies is particularly relevant observed in the medium and long term. These companies provide on average about 50% of productive employment and 50% of private sector turnover, they are flexible, innovative and able to quickly and efficiently respond to changes in consumer demand.

Along with the globalization of national economies, investments in knowledge are becoming a major source of competitive advantages and a driving force of economic growth. However, knowledge is a necessary but not sufficient condition for achieving economic growth and high employment rates. Investments in knowledge need to find a way from organizations and institutions in which they occur to those that commercialize and transform them into innovative activities. By acting as a mechanism for the dissemination

of knowledge, SMEs are an essential factor in achieving economic growth.

According to the OECD Working Party on SMEs and entrepreneurship[2] the contribution of innovative SMEs and entrepreneurship to job creation and economic growth can be characterized by the following facts:

- SMEs account for the majority of all enterprises and employment across the OECD countries. They make up more than 99% of all businesses and generate two-thirds of employment.
- New firms play an important role in job creation. In 2005 and 2006 new firms generated between1% and 6% of employment. The majority of new firms remain in the SME sector.
- In the longer term new firms, high-growth SMEs and SMEs can help raise productivity and introduce innovations.
- A select group of innovative SMEs are initiators of breakthrough innovation. They are often but not always high-growth SMEs. New firms represent a significant proportion of all patents filed by businesses, but this share varies strongly by country.
- The contribution of the SME sector to national R&D is also highly uneven, and is often greater in small economies than in large ones.
- Globalization appears to be impacting on entrepreneurship. For example, increases in market access have been associated with increases in the stock of SMEs.

As it was described in the research conducted in Korea[3], innovative SMEs in general show better performance in job creation, revenues and research and development investments. Also, they are more successful in management performance as well as regarding performance in growth potential, profitability and stability thus improving the competitiveness of the entire economy and increasing GDP. A chart on economic impacts of innovative SMEs is shown in the figure below.

In Serbia, the SME sector is the most effective segment of the economy and the main driving force for economic growth, employment, innovation and competitiveness. By generating an average of two thirds of employment, turnover and GDP and about 50% of exports, imports, investments and profits of the non-financial sector, these enterprises represent one of the single most important factors of the recovery of domestic economy. According to the Report on small and medium-sized enterprises and entrepreneurship in Serbia[4], in 2011 the SME sector accounted for 99.8% of all enterprises and generated 45.1% of employment, 46.5% of exports, 52.7% of imports, 61.7% of foreign trade deficit, nearly 33% of GDP and 51.7% of investments of the entire economy. A better picture of the overall performance of Serbian SMEs is provided by the comparative analysis of the achieved level of development of the SME sector in Serbia and in selected EU countries. Serbia is at the EU level in terms of the share of SMEs in total number of enterprises and in total employment and totally generated turnover and GDP. However, this in no case suggests that SMEs in Serbia are at the same level of development as the EU ones, but rather indicates that their contribution to economic development of the country is significant. Domestic SMEs are significantly below the EU average for most of the selected countries in terms of turnover per employee, profit and GVA per employee, investment per employee and investment per company.

The significance of innovative SMEs for job creation and economic growth has been broadly recognized by policy-makers in both developed and transitional countries. However, there are a number of barriers to innovative SMEs and entrepreneurship that stand on the road to achieving their full potential role in national economies. The most important barriers, according to the OECD, refer to inappropriate

[2] "Bologna+10" high-level meeting On Lessons from the global crisis and the way forward to job creation and growth, Issue Paper 1: Innovative SMEs and Entrepreneurship for Job Creation and Growth, November 2010, pp. 4, available at: http://www.oecd.org/cfe/smes/46404350.pdf

[3] www.apec-smeic.org/_file/.../Economic_Impacts_Eng_02summary.p...

[4] Report on SMEEs 2011, Ministry of Finance and Economy, Ministry of Regional Development and Local Government, National Agency for Regional Development, Belgrade, 2012

framework conditions for entrepreneurship, barriers to SME access to international markets and knowledge flows, weak intellectual asset management by SMEs and lack of entrepreneurial human capital.

Table 1.1. Comparative analysis of the level of development of SME sector in selected EU countries and Serbia, 2010

	EU	BG	CZ	HU	PL	RO	SI	SRB	
				2008				2009	2010
Number of enterprises in 000	20,727	303,4	899,0	532,0	1563,0	440,0	102,0	314,8	318,5
Number of employees in 000	90,006	940,2	2,505	1,767	5,880	2,663	424,0	872,5	814,6
Turnover in billion EURO	14,284	58,3	245,0	163,0	421,0	268,0	51,0	46,6	45,4
GDP in billion EURO	3,262	10,5	49,0	25,0	81,0	37,0	11,0	8,3	7,9
Profit in billion EURO	977	4,0	9,0	1,0	19,0	19,0	1,0	2,7	2,9
Number of SMEs per 1,000 citizens	41.6	41.4	86.6	53.0	41.0	20.4	50.7	43.0	43.5
Number of enterprises per employee	4.3	3.1	2.8	3.3	3.8	6.0	4.2	2.8	2.6
Turnover per employee in 000 EURO	158,7	62,0	97,8	92,2	71,6	101,8	120,3	53,7	55,7
GDP per employee in 000 EURO	40,3	11,1	19,6	14,1	13,8	14,1	25,9	9,5	9,7
Profit per employee in 000 EURO	10,9	4,2	3,6	0,6	3,2	7,2	2,4	3,1	3,5
Profitability rate	27.0	38.1	19.0	2.0	23.0	52.0	9.0	32.8	36.1
Share of SMEs in non-financial sector									
Number of enterprises	99.8	99.7	99.8	99.8	99.8	99.6	99.7	99.8	99.8
Number of employees	67.4	74.1	67.6	71.1	68.9	63.6	67.0	66.7	66.4
Turnover	57.7	65.1	58.8	58.8	59.2	58.7	63.2	67.8	65.3
GDP	57.7	54.1	54.8	51.9	51.7	42.2	59.8	57.4	55.9
Profit	49.4	45.4	31.5	-	33.6	34.8	29.1	54.1	51.6

Source: Report on SMEEs 2010

II INNOVATIVE ACTIVITIES OF SMALL AND MEDIUM-SIZED ENTERPRISES IN SERBIA

In Serbia it is only recently that more attention has been given to innovative SMEs even though they have been known to contribute significantly to dynamism and innovativeness of the economy. Only with raising awareness of the importance of innovative SMEs, institutional support measures appeared which were primarily related to the development of incubators, clusters, innovation centers, as well as to fostering competition in technological innovation and financing innovation projects.

According to international standards, the total level of research and development in Serbia is very low.

The largest investment is in higher education, while only 10% of total investment is realized in the corporate sector (60-65% in EU-15) (Eric et al. 2011, pp. 63). According to the European Innovation Scoreboard, which is an instrument set up by the European Commission with an aim to monitor and comparatively analyze innovative performances in the member and associate member states, Serbia belongs to the category of "catching-up countries". Namely, all countries are divided into four categories: innovation leaders, innovation followers, moderate innovators and catching-up countries. Serbia was included in the European Innovation Scoreboard for the first time in 2009 which was considered to be a positive step forward in attempt to measure the innovative potential of the economy and particularly of the SME sector. Serbia significantly legs behind the EU level in terms of the Summary Innovation Index (22.7, 47.8 respectively) which is calculated on the basis of aggregate indexes of national innovative performances.

The SME sector in Serbia is characterized by a number of problems which are reflected primarily in the lack of competition, poor product quality, the chronic lack of liquidity, sectorial and territorial discontinuity, unfavorable structure of the sector and limited access to affordable finance. Innovative SMEs are in even more difficult position since they are always associated with higher risk and uncertainty. The effects of the global economic crisis further deepened the problems which are considered to be the major obstacle to a better utilization of SME's potentials and their contribution to economic growth of the country.

In order to perceive the attitude of Serbian SMEs towards innovative activities and determine the type, the scope and the quality of these activities, the results of the Research on innovative activities of SMEs in the 2008-2010 period[5] conducted by the Statistical Office of the Republic of Serbia were analyzed. The survey provided data on the activities of enterprises in the innovation of products/services, innovation of processes, innovation in organization of a business entity, and marketing innovations. Most of the questions were related to new or significantly improved products or services, the use of new or significantly improved processes, logistics and distribution methods. A survey was carried out based on a representative, two-phase sample allocated on the territory of the Republic of Serbia to the level of the region, proportional to the number of SMEs. The sample covered 3,500 SMEs out of which the largest number was in the region of Belgrade (64.97%).

According to the results of the survey, 40.32% of medium-sized and 29.10% of small enterprises were engaged in innovative activities. When looking at how much the introduction of a certain type of innovation is represented according to the size of business entity i.e. innovator, it can be observed that the largest share of innovations is in the field of organization (31.27% in total, 29.10% in small and 40.32% in medium-sized enterprises). Enterprises engaged in manufacturing sector reported the highest share among innovators (36.46%), while the lowest share was reported among enterprises engaged in real estate (0.26%).

Table 2.1. Representation of the type of innovation according to territory and size of business entity in %

Territory	Business entity - innovator					Non-innovators
	innovation of product/ service	innovation of process	innovation abandoned or still in progress	innovation in organization	innovation in marketing	
Serbia - total	**26.49**	**27.25**	**14.46**	**31.27**	**28.50**	**53.19**
Small enterprises	33.30	36.30	21.10	40.32	37.51	42.78
Medium enterprises	24.86	25.09	12.87	29.10	26.34	55.68

Source: Report on SMEE 2010

[5] Research on innovative activities of SMEs in 2008-2010, available in the Report on SMEEs 2010, Ministry of Economy and Regional Development and National Agency for Regional Development, Belgrade, 2011

In order to analyze characteristics of innovative SMEs, all enterprises are divided into three categories: technological innovators, other innovators and non-innovators. Technological innovators are defined as business entities who introduced innovations in products/services or in business processes including unrealized or innovations still in progress. Other innovators refer to business entities who introduced innovations in organization or marketing. Non-innovators are business entities who introduced no innovations at all.

Table 2.2. Technological innovators according to type of innovative activity in %

Size of business entity	innovation of product/ service	innovation of process	innovation abandoned or suspended	innovation still in progress
Total	**28.67**	**36.20**	**4.20**	**13.97**
Small	24.86	31.15	3.64	10.51
Medium	33.30	43.54	3.80	8.40

Source: Report on SMEE 2010

Innovation of products/services refers to launching products or services that have new or significantly improved features or usability. This includes significant improvements in technical specifications, components and materials, embedded software, customer orientation or other functional characteristics. Innovation should be new to the business entity, and does not necessarily have to be new to the market. Innovation can be developed in the reporting business entity or elsewhere. Innovation of business process is the implementation of a new or significantly improved way of production or delivery. This includes significant changes in techniques, equipment or software.

Innovative activities related to product were carried out by 71.86% of small and 28.14% of medium-sized enterprises i.e. technological innovators. Innovative activities in the field of services were conducted by 76.98% of small and 23.02% of medium sized enterprises, while innovation of production methods was conducted in 70.79% i.e. 29.21% of SMEs respectively. New ways of supply and delivery were introduced in 72.21% i.e. 27.79% and new support activity for process was realized in 73.73% i.e. 26.27% of SMEs respectively.

Table 2.3. The structure of technological innovators according to type of introduced innovation

Size of business entity	Innovation of product/ service		Innovation of business process		
	innovation of product	innovation of service	innovation of production methods	new way of supply and delivery	new support activity for processes
Total	100.00	100.00	100.00	100.00	100.00
Small	71.86	76.98	70.79	72.21	73.73
Medium	28.14	23.02	29.21	27.79	26.27

Source: Report on SMEE 2010

The analysis of the markets where enterprises i.e. innovators sold their products/services indicates that 30.74% of technological innovators, 33.74% of other innovators and 45.41% of non-innovators sold on

local markets in Serbia. The most common market was the local, regional one.

Table 2.4. Markets where enterprises sold their products/services

Markets	Technological innovators	Other innovators	Non-innovators
Local, regional	30.74	33.74	45.41
National	24.04	26.14	27.12
EU countries, EFTA	12.40	12.18	8.32
Other countries	10.43	10.01	7.62

Source: Report on SMEE 2010

The survey indicated that nearly 60% of new products or services and 43% of business processes were introduced by business entities themselves or within the group they operate. 36.46% of innovations of products/services were new to the market, while 63.54% were new only to the enterprises.

Table 2.5. Innovative activities of technological innovators and expenditure for innovation activities

Activity	Participation of business entities	Value
Internal research and development	62.29	6.02
External research and development	26.16	5.01
Purchase of machinery, equipment and software	87.13	75.81
Purchase of other forms of knowledge	26.39	6.79
Education and training for innovation	63.11	...
Innovation to the market	52.95	...
All forms of design	44.45	...
Other	35.53	6.37

Source: Report on SMEE 2010

The largest share in the total expenditure for innovative activities refers to the purchase of machinery, equipment and software. About 10% of all business entities received some financial aid out of which 2.79% received support from state funds and 1.03% from the EU.

The ability of SMEs to respond quickly to changing market needs and to exploit new technologies depends not only on financial resources and business skills but also on the existence of culture of innovation in which there is a flow of information, research results are disseminated, data on innovation practice are collected and analyzed at national, regional and company level and best practices are identified and spread. Performing innovative activities often require cooperation with other enterprises, faculties, research institutions and other entities engaged in research and development projects.

The survey showed that in Serbia when forming new or implementing existing innovative projects,

more than 30% of SMEs relay predominantly on information within the business entity or the group to which they belong. Furthermore, there is a low level of cooperation among business entities and various agencies and institutions in the field of research and development, higher education, consulting, etc. The most important partners for Serbian innovators are suppliers and customers (78.69%, 73.39% respectively). According to the partner location, the largest share of enterprises cooperate with domestic partners (95.16%) and partners from Europe (51.50%), while significantly lower share cooperate with partners from the US and China/India (10.25%, 9.22% respectively).

Table 2.6. Sources of information of technological innovators in %

Sources		Total	Small	Medium
Internal	Within a business entity or a group it operates	32.25	31.06	35.88
Market	Suppliers	16.86	15.53	20.89
	Clients or customers	24.60	22.99	29.50
	Competitors or business entities from the sector	10.07	8.58	14.60
Institutional	Consultants, agencies for business research or R&D	6.28	5.84	7.64
	Faculties, Higher education institutions	4.58	3.60	7.54
	Public research institutions	2.59	2.17	6.58
Other	Conferences, fairs, exibitions	14.75	14.64	15.09
	Scientific journals, technical publications	9.86	9.76	10.15
	Professional associations	5.49	4.69	7.93

Source: Report on SMEE 2010

The survey placed special emphasis on the effects of innovation in the observed period of time, as well as on the major obstacles to conducting innovative activities. According to the results of the survey, the most significant effects were achieved in the area of improving the quality of products/services (28.82%), while the worst effects were achieved in reducing the cost of materials and energy per unit of product (11.21%).

The effects of innovative activities are reflected in the increased flexibility and quality of products and services, reduced direct material costs per unit out of output, increased competitivness on both domestic and international markets. As it was indicated by the survey, the effects of the introduction of technological innovations are presented in the following table.

Major obstacles to innovative activities of Serbian SMEs refer to cost factors i.e. lack of financial resources in the enterprise, lack of funding from sources outside the business entity and prohibitive costs of direct innovation. Obtaining finance is the most important factor that determines the survival and development of SMEs in general. Internal funds are often limited and using external funds is associated with many difficulties. Financing SMEs is risky and uncertain and for innovative SMEs it is even more difficult to obtain finance from various sources of financing for several reasons. First, the returns on innovative activities are often skewed and highly uncertain. Second, entrepreneurs may possess more information about the nature and characteristics of their products and processes than the potential financiers. Third, innovative activities are usually intangible thereby making the assessment of their monetary values difficult before they become commercially successful. [6]

Table 2.7. The effects of the introduction of technological innovations

[6] 2nd OECD Conference of Ministers Responsible for SMEs, Promoting Entrepreneurship and Innovative SMEs in Global Economy: Towards a more responsible and inclusive globalization, Istanbul, Turkey, 2004, pp. 5

Effects	Small enterprises	Medium enterprises
Increase in range of products	21.77%	29.69%
Replacement of obsolete products	18.95%	21.33%
New markets and increase in market share	13.11%	21.09%
Increase in quality of products and services	28.17%	30.94%
Increase in flexibility of products and services	17.60%	15.86%
Increase in production capacity/volume of services	16.32%	23.75%
Reduction of labor costs per unit of product	13.98%	18.05%
Reduction of cost of materials and energy per unit of product	10.31%	14.14%
Reduction of the environmental impact	12.50%	17.19%
Improving health and safety	15.38%	20.70%

Source: Statistical Office of the Republic of Serbia

In Serbia, debt financing is the most widely used source of external finance by SMEs but it is still unreachable for many, especially innovative enterprises, because of high interest rates, high banking costs and high collateral requirements (Eric et al. 2011, pp. 67). Obtaining necessary finance is the major obstacle for innovative activities of the Serbian SMEs because of an evident shortage of both debt and equity financing.

Table 2.8. Obstacles to innovative activities of technological innovators in %

Factors		Total	Small	Medium
Cost factors	Lack of financial resources in an enterprise	36.60	37.17	43.77
	Lack of funding from sources outside a business entity	26.04	26.57	24.30
	Prohibitive costs of direct innovation	30.09	30.34	29.30
Factors of knowledge	Lack of trained staff	5.66	6.08	0.00
	Lack of information on technologies	3.32	3.62	2.34
	Lack of information on markets	3.87	3.64	4.61
Market factors	Difficulty in finding partners for cooperation	11.51	12.62	7.89
	Markets dominated by ranking businesses	14.27	13.98	15.23
	Uncertain demand for innovative goods or services	13.92	14.48	12.11

Source: Report on SMEE 2010

SMEs who reported no innovative activities at all as major obstacles besides the lack of financial resources stated the lack of trained staff, lack of information on technologies and uncertain demand for innovative goods and services.

III INSTITUTIONAL SUPPORT FOR INNOVATIVE SMALL AND MEDIUM-SIZED ENTERPRISES IN SERBIA

National programs for supporting SMEs to enhance innovative activities include the following two programs: the Program for strengthening innovativeness and the Program for supporting the development of innovative clusters. Both programs are implemented by the Ministry of Economy and Regional Development

in cooperation with the National Agency for Regional Development and accredited network of regional development agencies.

The Program for strengthening innovativeness aims at providing support for the development of a culture of investing in innovation in order to enhance competitiveness. National agencies reimburs up to 50% of eligible costs of innovative activities, while the remaining amount of funds is financied from an enterprise's own resources. A public call is announced for co-financing innovative activities:

Table 3.1. Eligible costs based on innovative activities

Activities	Eligible costs
development of new product/service	• preparation of technical documentation for new product/service • prototyping of products/services • testing/examining prototypes
significant improvement of the existing product/service	• preparation of technical documentation for new product/service, • prototyping of products/services • testing/examining prototypes
development of new collections in the fashion industry	• development of design expertise
development of industrial design/redesign of products	• development of design expertise • development of conceptual design solutions with a description of the technical characteristics and • prototype product designs in real or adequate material or in digital form
development of new product packaging	• preparation of preliminary design and • creation of the test sample of the new packaging
marketing planning of products/services	• development of a marketing plan for new products/services
improving existing and introducing new production processes	• preparation of technical/technologcal documentation and • development of constructive documentation tools, equipment and working
purchase of the patent / utility models and patent documents	• purchase of rights to a patent / petty patent

Source: According to data contained in the Public call for grants under the Supporting measures for SMEs and cooperatives for enhancing innovativeness announced in 2012, available at: http://www.merr.gov.rs/sr/javni–pozivi

The decision on the seceltion of activities whose costs will be co-financied is made by the Commission for evaluation and selection of applications. The decision is made on the basis of exactly defined criteria. Some of those criteria refer to the following (Eric et al. 2011, pp. 156):

- The quality of the proposed innovative activity and its effect on increasing competitiveness,
- Investments in innovative activities in the past and cooperation with certain companies and organizations,

- Results of business operations in the last two years,
- The criterion that applies to employees,
- The recommended amount of costs to be funded from an enterprise's own resources,
- Reality of supply,
- The level of development of the local government unit where the company is registered and
- Previous funding from the budgets of national agencies that was used by the company to finance innovative activities.

In order for an enterprise to be able to participate in the funding it has to be under majority local ownership. Legal entities that are registered in the Republic of Serbia but are under majority foreign ownership have no right to use the grant.

Another way the state contributes to enhancing the innovative activities of SMEs refers to the Program for supporting the development of innovative clusters. In Serbia, due to its specificity and significant contribution to economic growth, promoting clusters and cluster policy development has become more intensive in the previous decade (Ðuricin and Beraha 2010, pp. 40). The Program aims at increasing productivity and competitiveness of domestic SMEEs by linking them into a cluster. Other objectives of the Program refer to the development of material and human resources and infrastructure, as well as to an increase in the value of turnover of enterprises at domestic and international markets and the development of regional clusters through the implementation of joint projects. Special emphasis is on strengthening the cooperation with scientific-research institutions by improving the capacity of enterprises for technological development and innovation (Eric et al. 2011, pp. 164).

SMEs have the right to use the grant funds if they manage innovative clusters and their activities. The following clusters have the right to have activities for the development of innovative cluster co-financed:

- The newly established innovative clusters in the initial stage and
- Existing innovative clusters in the developmental stage.

Innovative clusters that applied for grant funds may be eligible for co-financing of up to 50% of eligible costs of projects, while the remaining amount of funds they are required to finance from their own resources.

Table 3.2. Activities that can be co-financied

The newly established innovative clusters	Existing innovative clusters
• **Operating costs incurred for the purpose of internal and external member linking**	• Covering the costs of developing joint services of a cluster
• **The costs of attracting new members**	• Co-funding of feasibility studies and other project technical documentation for joint infrastructure projects
• **The cost of the program, training and development, in order to introduce EU rules**	• The costs of developing and /or implementing joint innovative projects related to the development of new or improvement of existing processes or effects
• **Costs arising from seminars and conferences that encourage knowledge sharing**	• The costs of manufacturing and testing of prototypes and new product design and packaging, testing and introduction of new production processes

• **The costs of connecting the cluster members and the promotion of clusters**	• The costs of intellectual property protection
	• Cost of purchase of patent rights and patent documentation
	• Cost of training, specialized training and familiarization with the technical regulations applicable to the EU market
	• Costs of organization of conferences that encourage knowledge sharing, networking and promotion of clusters

Source: According to data contained in the Public call for grants under Program for supporting the development of innovative clusters announced in 2012, available at: http://www.merr.gov.rs/sr/javni– pozivi

The decision on the selection of projects to be co-financied is made by the Commission on the basis of the following criteria (Eric et al. 2012, pp. 167):

- For newly established innovative clusters in the initial stage: the cluster profile, the operating result of the member companies and results of the cluster in the area of research and development;
- For innovative clusters in the developing stage: the joint activities of a cluster, the cluster profile, operating result of the member companies and results of the cluster in the area of research and development;
- For projects of newly established clusters and clusters in the developing stage: the financial and operational capacity, relevance, methodology, sustainability and budget and cost efficiency.

The Program for supporting the development of innovative clusters in Serbia is significant for it contributes to economic growth, job creation and export growth. Since entrepreneurship is expected to contribute significantly to economic and social development of Serbia, having national support measures for innovative activities of SMEs means that the focus is put on the development of competitive, knowledge and new technology based economy. For this reason, the vision of developing an entrepreneurial economy based on knowledge and innovation which will create a strong, competitive and export-oriented SME sector and contribute to increasing the living standard of the people is created and contained in the Strategy for the development of competitive and innovative SMEs in 2008-2013 period of time.

IV CONCLUDING REMARKS –RECOMMENDATIONS FOR STRENGTHENING THE CAPACITY OF SMALL AND MEDIUM-SIZED ENTERPRISES FOR INNOVATIVE ACTIVITIES

SMEs in Serbia show considerable propensity to undertake innovative activities. According to the previously mentioned survey, 40.32% of medium and 29.10% of small enterprises were engaged in any kind of innovative activity. Enterprises that belong to the manufacturing sector have the largest share among innovative enterprises (36.46%), while the largest share of innovations is in the field of organization (31.27% in total). Among technological innovators, innovation of process i.e. implementation of a new or significantly improved way of production or delivery is the most represented type of innovative activity. According to the type of introduced innovation, innovative activities in the field of services were carried out by the largest share of technological innovators.

The most common market where Serbian innovative SMEs sold their products and services referred to the local, regional market. This indicates that one of the barriers to innovation that domestic enterprises are facing is related to access to international markets and knowledge flows. Export orientation is one of the preconditions for achieving rapid SME growth. Limited internalization is mainly a result of low quality of domestic products and services, missing market know-how in terms of meeting customers' needs and entering foreign markets, lack of information on foreign markets and supply chains, lack of managerial knowledge and

skills for international engagement, lack of workforce skills and knowledge, shortage of investment and working capital and administrative and technical difficulties. Another barrier refers to limited source of information and low level of cooperation among business entities and various agencies and institutions in the field of research and development, higher education, consulting, etc. and insufficient dissemination of research results.

Accordingly, future priorities of Serbian policy makers should include actions to promote innovation and encourage the participation of SMEs, develop a conductive entrepreneurial business environment, address financial and administrative and technical barriers to internalization of SMEs, enhance entrepreneurship skills and access to sources of information, increase the cooperation among SME sector and institutions and agencies in the field of higher education, research and development, as well as increase the exploitation of public and private research. Innovation networks are always associated with rapid growth of SMEs in general and particularly of innovative ones. More emphasis needs to be put on the dissemination of research results and innovation practices and on the analysis of innovation data on company, regional and national level. Institutional measures are needed to address the problem of insufficient exploitation of knowledge generated by the public research. Financial support should be directed towards better involvement of SMEs in collaborative research projects, the creation of science parks, incubators, clusters and technology centers. Furthermore, improvements are necessary in the field of intellectual assets management, entrepreneusrhip skills development, simplification of bureaucratic procedures and adjustment of laws and regulations to the needs of SMEs.

Discussions on innovative activities of SMEs often focus on limited access to finance. The analysis of the structure of total expenditure for innovative activities showed the largest share of purchase of machinery, equipment and software. Major obstacles to innovative activities are related to cost factors i.e. lack of financial resources in the enterprise, lack of funding from sources outside the business entity and prohibitive costs of direct innovation. SMEs are facing an evident shortage of both debt and equity financing. For that reason, policy actions directed towards promoting equity financing, creating competitive banking sector and raising awareness of available financing options are necessary (Eric et al. 2011, pp. 73). Beside the existing, new institutional measures aimed at providing financial support for enhancing innovative activities should be introduced.

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