3.9 SME CLUSTERING IN SERBIA: FINDING THE RIGHT BUSINESS PARTNERS AND IMPROVING THE BUSINESS ENVIRONMENT FOR SMEs

Sonja Đuričin
Research Associate, PhD
Institute of Economic Sciences,
Belgrade, Republic of Serbia

Isidora Beraha
Research Associate, Magister
Institute of Economic Sciences,
Belgrade, Republic of Serbia

ABSTRACT

Relevant strategic documents have demonstrated the positive effects of clustering. Serbia, as a small transition economy, should consider clustering as a means of strengthening competitiveness of enterprises and regions, improving the structure of business activities, and strengthening cooperation and links between businesses and public and scientific institutions. Clusters' contribution to economic growth and development is limited by the poor implementation of relevant strategic documents. The main objective of this paper is to identify specific government measures for the improvement of the existing business environment, the implementation of strategic documents, and the development of innovative SMEs and clusters. To promote SME innovation activities, it is necessary to introduce a national innovation system based on a feedback mechanism between science and businesses, and to raise awareness on the benefits of innovation for improved competitiveness. More dynamic cluster development also requires promotion of cluster development policy, evaluation of cluster activities, more intensive cooperation with the EU in the field of cluster policy implementation, as well as supervision and evaluation of these policies.

Keywords: innovative and technology oriented SMEs, clusters, business environment, measures, competitiveness, incentives, policy

JEL Classification: G21, G 23, G 24, G 28, O30, L53

3.9.1   INTRODUCTION

SMEs play a key role in transition and developing economies. Thus, SME development is one of the most important factors determining the further course of convergence of the Serbian economy towards a developed market economy. However, SMEs are facing numerous obstacles in their growth and development. These obstacles are mainly due to their isolation, rather than their size. The growth of individual SMEs is often constrained by limited access to both human and financial resources, limited access to information on new technologies, limited knowledge and managerial skills, lack of economies of scale, as well as weak negotiation power and market position. The concept of clusters provides the opportunity for SMEs to expand their resources and capabilities to levels that would not be achievable for individual firms.

The main objective of this paper is to identify specific government measures to improve the existing business environment, the implementation of strategic documents and the development of innovative SMEs and clusters. We will do that by analyzing the current level of SME cluster development in Serbia as well as the business environment in which they operate.

This paper is composed of four logically linked sections. The first section pinpoints the role and importance of SMEs, while the second section presents the survey results on the current state and development of clusters and their contribution to economic growth. The third section analyzes the institutional framework as well as the existing regulations and initiatives for the development of innovative SMEs and clusters. The fourth section proposes the improvement measures for more successful implementation of strategic documents, and more dynamic development of innovative SMEs and clusters.

3.9.2   THE ROLE AND IMPORTANCE OF INNOVATIVE AND TECHNOLOGY ORIENTED SMEs

Innovation activities are the backbone of improved business processes, individual entrepreneurial development as well as of the entire economic and social development. While operational efficiency and productivity of enterprises strengthens the economy, knowledge as a basis of every innovation activity is the key driver of society's overall development. Innovation is the leading engine of economic growth and a key element in making

businesses competitive, generating new jobs, and achieving smart and sustainable development (Erić, Beraha and Đuričin 2011, 61)

According to the Summary Innovation Index (SII), Serbia falls into the category of moderate innovators. However, the evaluation of Serbia's improved performance in innovation activity indicates that the country had an average annual growth rate of 6.31%. Furthermore, based on the value of performance and indicators determining innovation level, Serbia's relative output has notably improved against the EU average from 48.36% in 2007 to 69.37% in 2014.

Table 1: Summary Innovation Index (SII) time series

	2007.	2008.	2009.	2010.	2011.	2012.	2013.	2014.	Growth rate
EU28	0.519	0.519	0.529	0.543	0.545	0.542	0.554	0.555	0.98%
Serbia	0.251	0.252	0.259	0.271	0.261	0.334	0.355	0.385	6.31%
Relative to EU	48.36%	48.55%	48.96%	49.91%	47.89%	61.62%	64.08%	69.37%	

Source: European Commission, Innovation Union Scoreboard 2015

Although Serbia operates below the EU average, certain dimensions of innovativeness have significantly improved in the country. The value of the public-private co-publications indicator within the dimension of Linkages and Entrepreneurship rose by 22%, while Non-R&D innovation expenditure, and license and patent revenues from abroad within the firm investment and economic effects dimensions rose by 19.7% and 19.5% respectively. The indicators of Innovative SMEs collaborating with others and SMEs with marketing or organizational innovations increased considerably by 12%, while the value of the community design indicator showed the most severe reduction with a 23% drop.

Table 2: Innovation dimensions and indicators, Serbia vs. EU-28

	EU-28	Serbia
ENABLERS		
Human resources		
1.1.1 New doctorate graduates	2.6%	7.9%
1.1.2 Population completed tertiary education	3.6%	6.1%
1.1.3 Youth with upper secondary education	0.5%	0.0%
Open, excellent and attractive research systems		
1.2.1 International scientific co-publications	6.7%	3.5%
1.2.2 Scientific publications among top 10% most cited	1.5%	n/a
1.2.3 Non-EU doctorate students	3.5%	-2.5%
Finance and support		
1.3.1 R&D expenditure in the public sector	1.9%	-1.2%
1.3.2 Venture capital investments	-7.9%	n/a
FIRM ACTIVITIES		
Firm investments		
2.1.1 R&D expenditure in the business sector	1.9%	6.3%
2.1.2 Non-R&D innovation expenditure	1.9%	19.7%
Linkages & entrepreneurship		
2.2.1 SMEs innovating in-house	-0.8%	-1.4%
2.2.2 Innovative SMEs collaborating with others	2.5%	11.7%
2.2.3 Public-private co-publications	2.3%	22.0%
Intellectual Assets		
2.3.1 PCT patent applications	-0.4%	n/a
2.3.2 PCT patent applications in societal challenges	2.0%	n/a
2.3.3 Community trademarks	5.1%	9.5%
2.3.4 Community designs	1.7%	-23.3%
OUTPUTS		
Innovators		
3.1.1 SMEs introducing product or process innovations	-1.7%	6.6%
3.1.2 SMEs introducing marketing and/or organizational innovations	-3.3%	12.3%
3.1.3 Employment of fast-growing firms' innovative sectors	0.5%	n/a
Economic effects		
3.2.1 Employment in knowledge-intensive activities	0.6%	3.2%
3.2.2 Medium & high-tech product exports	-0.8%	9.6%
3.2.3 Knowledge-intensive services exports	0.7%	0.3%
3.2.4 Sales of new-to-market and new-to-firm innovations	-0.8%	3.1%
3.2.5 License and patent revenues from abroad	9.8%	19.5%

Source: European Commission, Innovation Union Scoreboard 2015, p.84

A rise in the value of indicators determining innovation activities in Serbia has not been followed by the growth of innovative SMEs. Innovative SMEs are SMEs that continuously seek out innovation activities and create value by improving existing products and services, or producing and distributing new ones (Đuričin and Beraha 2013, 45). The number of highly innovative enterprises (i.e. enterprises with high innovation potential) in the SME sector is relatively small. Low levels of innovativeness among SMEs (which form most of the businesses in the country) lead us to conclude that economic growth in Serbia is not knowledge-driven.

Graph 1: Share of innovative SMEs in the total economy of the Republic of Serbia
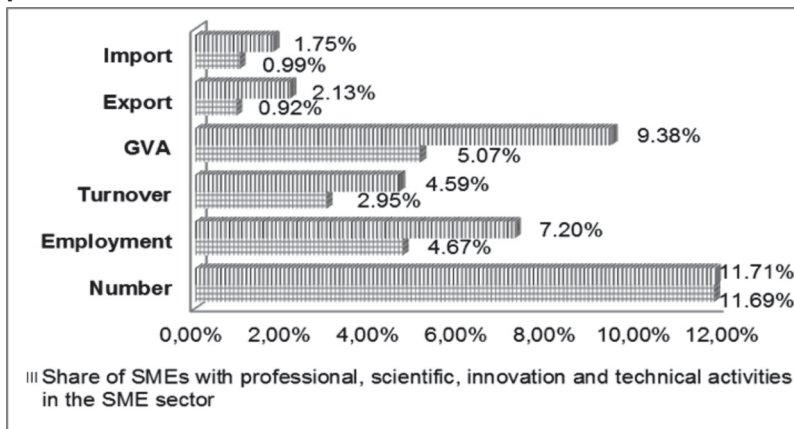
Source: Ministry of Economy and National Agency for Regional Development (NARD), Report on Small and Medium-sized Enterprises and Entrepreneurship 2013

SMEs engaging in professional, scientific, technical and innovative activities represent 11.69% of all businesses in the Serbian economy, and 11.71% of the entire SME sector. They generate 4.67% of total employment, 5.07% of gross value added (GVA) and account for 2.95% of total turnover. Their contribution to total exports and imports of the Republic of Serbia is rather low at 0.92% and 0.99% respectively.

Table 3: Structure of SMEs with professional, scientific, innovation and technical activities

	Entrepreneurs	Micro enterprises	Small enterprises	Medium-sized enterprises	∑
	Structure of SMEs with professional, scientific, innovation and technical activities (%)				
Number	69.96	27.58	2.21	0.25	100.00
Employment	21.27	35.99	26.82	15.92	100.00
Turnover	19.02	30.75	26.63	23.59	100.00
GVA	28.81	23.53	26.80	20.87	100.00
Export	0.46	21.78	9.88	67.88	100.00
Import	0.29	33.06	24.65	35.89	100.00

Source: Ministry of Economy and National Agency for Regional Development (NARD), Report on Small and Medium-sized Enterprises and Entrepreneurship 2013

Of all SMEs engaging in professional, scientific, technical and innovative activities, 69.96% are held by entrepreneurs (69.96%). Microenterprises

account for the largest share of employment and turnover at 35.99% and 30.75% respectively. Middle-sized enterprises (which account for only 0.25% of total number of enterprises) generate 67.88% of exports and 35.89% of imports.

The low share of innovative SMEs in the Serbian economy, as well as the disproportional relationship between their number and participation in key macroeconomic indicators highlight the need for more intensive measures supporting the growth of these enterprises. The need to provide more pro-active support is further justified by the facts that only a small number of innovative SMEs have modern equipment, comply with high quality standards, and are capable of protecting their innovative research through the intellectual property rights and developing close cooperation with other enterprises.

The findings of the National Agency for Regional Development of the Republic of Serbia (NARD) 2014 Survey covering 10% of the total number of SMEs in Serbia showed that 52% of respondents have owned their equipment for 5-10 years, every third enterprise owned equipment for more 10 years, and every fifth enterprise owned equipment for less than 5 years. The survey also showed that 23% of respondents comply with quality standards and have certificates, while only 18% plan to implement them in the future. Innovation activities were engaged by only 31% of the surveyed SMEs; 54% of enterprises within this group engaged in energy and raw materials saving innovation, while the remaining 46% referred to labour cost reductions. Intellectual property rights are protected by only 7% of respondents, out of which 5% protected the company's brand and 2% protected industrial design.

According to Eurostat data, 50% of the total number of SMEs engaged in innovation activities pertaining to information technology (IT) and graphics, while the other half concentrated on production and processing. Product/production process innovations were introduced by 15.4% of enterprises; organizational/marketing innovations were introduced by 22.5%; and 45.9% introduced both product/production process and organizational/marketing innovations.

Graph 2: Structure of innovative enterprises by type of innovation
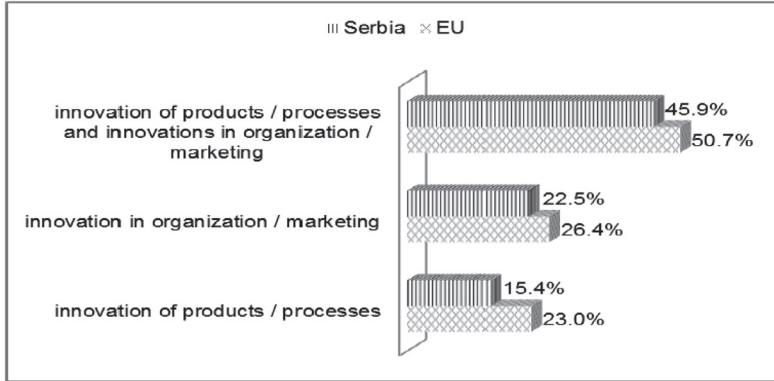
Source: Eurostat, 2010

3.9.3 CLUSTERS IN THE REPUBLIC OF SERBIA

Clusters are geographic concentrations of interconnected companies, spe-cialized suppliers, service providers, firms in related industries, and as-sociated institutions (e.g. universities, standards agencies, trade associa-tions) in a particular field that compete but also cooperate (Porter 2000, 15). A cluster-based approach refers to the idea that geographic proximity, networking and specialization lead to increasing productivity, innovative-ness and competitiveness of SMEs (Aćimović and Beraha 2010, 291).

Membership in clusters can enhance the competitive advantage of SMEs by improving their productivity and innovative performance, as well as by reducing their operational costs. Through clustering, individual SMEs can improve productivity and innovativeness by increased access to fi-nance and international markets, open exchange of knowledge, as well as through skills, ideas and technology transfers. Reduction in operational costs can be achieved through collective action allowing greater special-ization and possibilities for economies of scope and scale, efficiency in marketing efforts, gaining considerable market share, easier introduction of quality standards, etc.

A cluster's level of development determines the impact it has on SME performance and innovation. Advantages associated with clusters do not emerge through the simple existence of a cluster. Only clusters in the

growth and commercialization phase can reach the critical mass of knowledge needed for innovativeness, productivity and competitiveness.

There are a significant number of cluster initiatives in Serbia. However, the level of economic clustering is unsatisfactory. According to the level of cluster development, Serbia ranks 122 out of 143 countries. Among the Organization of the Black Sea Economic Cooperation (BSEC) countries, Serbia's position is only relatively better than Ukraine, Albania and Moldova.

Graph 4: State of cluster development 2014
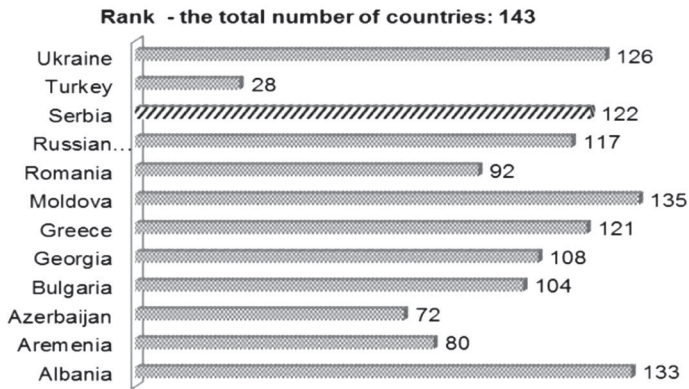
Source: Soumitra Dutta et al., Global Innovation Index 2014

According to the latest available data, 58 clusters are present in the Serbian economy. The clusters are classified according to their stage of development as follows:
• 20% of clusters are cluster initiatives (first stage),
• 30% of clusters are in the initial stage of operation (second stage),
• 20% of clusters are in the growth and commercialization stage (third stage),
• 30% of clusters are in the sustainability stage (fourth stage).

In order to evaluate the current state, level of development and role of clusters in economic development, the authors conducted a survey covering 35% of the total number of existing clusters in Serbia. The evaluation was based on the share of clusters in key macroeconomic indicators.

The findings of the survey showed that the Automotive Cluster of Serbia (AC Serbia) is the most developed cluster in the Serbian economy, as it generates the largest share of employment and a significant share of turnover (37% and 22% respectively). AC Serbia consists of 47 members, of which 44 are companies and 3 are scientific research institutes. It is a network of enterprises and institutions engaged in the manufacturing of automotive components and equipment, and providing services in the automotive industry. The Automotive Cluster was established in November 2005 with the support of the Government of the Republic of Serbia and the German Technical Cooperation Agency (GTZ) with an aim to support its members in the process of strengthening competitiveness, reaching profitable positions in the supply chains of international equipment manu-facturers (OEMs), and consequently improving the economic situation of the Serbian automotive industry as a whole.

Only the Cluster for Organized Collection and Recycling of Used Batteries and Accumulators (Galenit) generates a greater share of total turnover than AC Serbia, while accounting for larger share in the total number of surveyed clusters.

Table 4: Share of clusters in selected macroeconomic indicators

	Number of clusters	Number of enterprises in the cluster	Number of scientific institutions	Number of employees	Total turnover
Agriculture and food industry	15	22	20	5	0
Metal processing and manufacturing	10	3	6	3	3
Automotive industry	5	5	6	37	22
Wood processing industry	10	25	8	23	13
Chemical industry	5	3	6	5	0
Leather and footwear industry	5	4	5	1	0
Recycling industry	10	4	6	7	56
Information technology	10	5	9	6	2
Construction	5	12	8	6	0
Tourism	25	17	25	6	3
∑	100	100	100	100	100

Source: Authors' research

A fifth of all innovative enterprises cooperate with other companies and every sixth is a member of local associations, while only 5% is involved in clusters. Innovation through cooperation was realized by 20.4%, 30.4% and 43.9% of the total number of small, medium-sized and large innovative enterprises respectively.

Graph 3: Structure of innovative enterprises that have made innovation cooperation
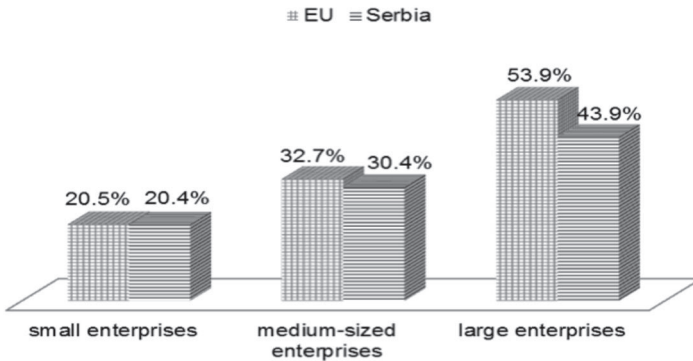
Source: Eurostat, 2010

Although Serbia has far fewer innovative enterprises than the EU economy, it is not significantly lagging behind the EU in innovation through cooperation. Innovation through cooperation is important, as it provides a mechanism for knowledge sharing and resource transferring between cooperating enterprises. The interfirm sharing of knowledge and resources is particularly important for SMEs because they often lack knowledge and resources of their own. When cooperating with other entities such as suppliers, customers, universities, and public and private research and scientific institutions, SMEs perform better and make greater contributions to economic growth and development. The extent to which clusters' business networking contributes to economic development can be observed by their participation in key macroeconomic indicators (see Table 4).

Clusters in the field of tourism account for 25% of the total number of surveyed clusters, but generate only 6% of employment and 3% of total turnover. The survey findings are rather similar regarding clusters in the field of agriculture and the food industry. Their significant share in the total

number of clusters is not followed by an appropriate share in employment and turnover.

In view of the importance and role of clusters in promoting competitiveness and innovativeness of SMEs, job creation and economic growth, as well as their current stage of development, policymakers should focus on providing more efficient support to clusters and clustering in the Serbian economy. Before sufficiently high levels of productivity can affect an increase in SME efficiency and innovation activity, specific macroeconomic policy as well as the provision of functional and strong institutional capacity must first be implemented (Đuričin, Stevanović and Baranenko 2013, 46).

3.9.4   CLUSTER POLICY AND INCENTIVES FOR SUPPORTING CREATION OF CLUSTERS AND INNOVATIVE SMES

Given the role and impact of clusters on economic development, specific policies should be designed to promote clusters (Beraha 2012, 74). National innovative SME and cluster support programmes ought to strengthen the capacity of enterprises through mutual cooperation and partnership with scientific research and supporting institutions.

The Serbian government has prioritized support for the small and medium enterprises and entrepreneurs (SMEE) sector since 2000, due to the poor market conditions negatively impacting the survival and growth of private businesses. An insufficiently developed banking system, distrust in financial institutions, high level of shadow economy, large companies' monopoly of trade, unsuitable regulatory framework and low level of consciousness of the importance of private business engendered the need for more intensive and direct financial and non-financial support of the development of SMEEs.

Institutional support for innovative SMEs and clusters through the introduction and implementation of appropriate regulation contributes to efficiency and productivity growth of the economy as a whole. Development programmes for innovative SMEs and clusters enhance competitiveness, export performance and productivity. More productive operating will result in lower unemployment rates and improve standard of living, thus increasing the welfare of the entire society.

For highly flexible and adaptable enterprises contributing significantly to economic growth and development, institutional support makes it easier for them to access resources they lack and engage financial institutions in specialized business arrangements that were previously closed to them (Erić et al. 2012, 147). Institutional support can be delivered to SMEs directly or through authorized government entities, and it can take various forms such as non-refundable grants, donations, favourable interest rate loans, guarantees, etc. The institutions involved in providing financial and non-financial support to SMEs are the Ministry of Economy, Development Fund of the Republic of Serbia, Serbian Export Credit and Insurance Agency, Serbia Investment and Export Promotion Agency, National Agency for Regional Development with a network of accredited regional development agencies, Innovation Fund, Ministry of Education, Science and Technological Development, and the Chamber of Commerce and Industry of Serbia.

The Cluster House plays a very special role in cluster promotion and development in Serbia. It was established in 2011 with the technical support of the Danish government via the Local Economic Development in the Balkans (LEDIB) programme, following an initiative of seven existing clusters from Southeast Europe. The Cluster House is engaged in cluster development activities, as well as in promoting business associations and SMEs. It is also a coordinator of the Balkan Network of Clusters, which consists of 170 cluster organizations and relevant supporting institutions. A specific model for SME and cluster development in transition economies was introduced to incorporate cross-border cooperation and synergy effects in the region so as to contribute to its sustainable development. Cluster House aims to be the cluster of excellence in the Balkan and Black Sea area.

The Strategy for the Development of SMEs and Entrepreneurship 2003-2008 points to the introduction of national regulations supporting clusters and innovative SMEs. The implementation of the Strategy encouraged the adoption of the Programme for the Development of Business Incubators and Clusters 2007-2010. Within this Programme, a project called Cluster Development Promotion 2006-2011 was realized. In the first year that Cluster Development Promotion 2006-2011 was implemented, four pilot clusters, including the Automotive Cluster of Serbia, reached the stage of growth and commercialization. The four pilot clusters, as well as other clusters supported by the project were provided assistance as part of the Strategy for the Development of Competitive and Innovative SMEs 2008-

2013. This Strategy for the Development of Competitive and Innovative SMEs 2008-2013 also aimed to provide support for cluster development, implement best practices learned from various cluster programmes, help SMEs to access large companies' supply chains, etc.

In 2011-2013, €12,145,080 was spent on programmes supporting innovative SMEs and clusters; 3% of which was dedicated to cluster development support and the rest on promoting innovation.

Table 5: Cluster development and innovation support programmes, 2011-2013

				- in EUR -
	2011.	2012.	2013.	∑
Programmes supporting cluster development	138,259	100,000	155,696	393,955
Programmes supporting innovation	3,289,700	4,960,833	3,500,592	11,751,125
∑				12,145,080

Source: Ministry of Economy, and National Agency for Regional Development (NARD), Reports on SME and Entrepreneurship 2011-2013

The most important initiative promoting the development of innovative clusters began in 2010, following the public call for the realization of the Programme for Innovative Cluster Development (PICD). PICD's main objective was SME capacity building in technology and innovation through cooperation among companies and research and scientific institutions. It offered non-refundable grants to SMEs to improve their trading in both national and international markets, as well as to strengthen cooperation with clusters in the region and foster realization of mutual projects. In the last six years, a total of €652,929 was allocated to the implementation of PICD.

Table 6: Non-refundable funds granted through the Programme for Innovative Cluster Development

	2010.		2011.		2012.		2013.		2014.		2015.	
	€	clus.	€	clus.	€	clus.	€	clus.	€	clus.	€	clus.
PICD	141.666	8	155.000	9	100.000	15	103.388	17	69.542	n/a	83.333	n/a
Total for 6 years											652.929	

There are two most notable programmes currently supporting the development of innovative SMEs and clusters: the Strategy for the Development of SMEs, Entrepreneurship and Competitiveness 2015-2020, and the Strategy for Cluster Development 2015-2020.

The Strategy for the Development of SMEs, Entrepreneurship and Competitiveness 2015-2020 determines the implementation of measures promoting SMEE and competitiveness in the medium-term period through six pillars:

1. Improving the business environment,
2. Improving access to finance,
3. Continuous human resource development,
4. Strengthening SMEE sustainability and competitiveness,
5. Improving access to new markets, and
6. Enhancing the entrepreneurial spirit as well as promoting women, youth and social entrepreneurship.

The implementation of measures promoting SMEEs and competitiveness creates opportunities for the establishment of new clusters, as well as for the growth and commercialization of existing ones. Consequently, the adoption of the Strategy for Cluster Development is a logical follow-up in the national regulatory progress in this field. The Strategy for Cluster Development 2015-2020 seeks to encourage cluster policy implementation, cluster mapping and coordination, specialization of regions and creation of a regional cluster map. In order to accomplish these objectives, it is necessary to successfully implement measures aimed at improving the business environment, access to finance and access to new markets, as well as continuous human resource development and entrepreneurial spirit encouragement.

Successful implementation of measures contained within the six pillars of the Strategy for the Development of SMEs, Entrepreneurship and Competitiveness 2015-2020 would strengthen the SMEE sector, thereby reducing government spending for SMEEs. While budget expenditure supporting SMEE development and competitiveness are necessary, they remain inadequate for two reasons.

Firstly, actual monetary policy and market conditions are not associated with economic growth, which in turn casts doubt as to the efficiency of budget spending vis-à-vis its effects on the level of SMEE development. It is impossible to sustain long-term increases in budget spending for the promotion of self-employment, SME development and entrepreneurial spirit when the overall budget deficit is rising (Đuričin and Pantić 2015, 53). Despite the progress made between the beginnings of the transition

process of the Serbian economy in 2000 until the outbreak of the world financial crisis in 2008, Serbia's economy is still in a precarious position (Beraha and Đuričin 2011, 290).

Secondly, Serbian enterprises have scant knowledge of the institutional support available to them. According to the findings of the survey on SME financing in Serbia (Erić et al. 2012, 150), the largest share of respondents (30%) is only partially aware of eligible government financial assistance programmes, an almost equal share of respondents is mainly informed and mainly uninformed (23% and 25% respectively), 13% of surveyed SMEs is completely unaware, and only 8% is completely aware of government financing programmes.

An adequate implementation of current strategic documents towards enhancing competitiveness and internalization of SMEs, cluster development policy, cluster mapping and their more efficient coordination as well as greater specialization of regions and regional cluster map creation would eventually lead to a reduction in government spending. Before this can be achieved, a set of measures improving the business environment, access to finance and new markets, human resource development and entrepreneurial spirit encouragement must be adopted.

3.9.5 MEASURES FOR MORE SUCCESFUL IMPLEMENTATION OF STRATEGIC DOCUMENTS AND DEVELOPMENT OF INNOVATIVE SMEs AND CLUSTERS

There is no doubt that Serbia has achieved continuity in the last fifteen years through the adoption of strategic documents promoting SME development and competitiveness via innovation and cluster networking. However, the expected outcome of such documents implementation is missing. Before measures for more successful implementation of strategic documents and development of innovative SMEs and clusters can be proposed, it is necessary to identify the advantages and shortcomings of the current business environment, availability of financing, level of human resource development and entrepreneurial spirit. This is because the development of innovative SMEs and clusters is predicated on the successful implementation of strategic documents.

A stable macroeconomic environment will contribute to more dynamic development of SMEs. In the period following 2008, the business environment in Serbia deteriorated due to the negative effects of world financial

crisis. The recovery of the Serbian economy began in 2013 when positive signs were recorded, i.e. growth of economic activity, low level of inflation, an increase in foreign exchange reserves, and a decrease in current account and fiscal deficits. However, the Serbian economy is still facing significant developing problems and an increase in key macroeconomic indicators needs to be sustained over a longer period of time. The most important problems of the Serbian economy are high unemployment, constantly increasing foreign and public debt, and low levels of foreign direct investment (FDI).

The regulatory environment is the most significant aspect of the business environment because of its impact on economic growth and development. A regulatory aspect of business environment can be evaluated through efficiency of administrative procedures, as well as in the implementation and transparency in adopting laws and regulations. Despite the unstable macroeconomic environment of the previous fifteen years, significant regulatory reforms were undertaken in Serbia. In 2009-2011, the comprehensive regulatory reform resulted in the abolition of hundreds of rules and regulations, which in turn led to a significant reduction in administrative costs. However, the positive effects were mitigated by the adoption of new rules and the low level of consistency in implementing the improvement proposals.

Efficiency in the implementation of administrative procedures is the first aspect of regulatory reform that must be improved. To that end, a normative framework for the provision of services such as various certifications, licenses, etc. must be introduced in order to ensure that each service provided is done so in an optimal amount of time. A service must also declare objective, clear and transparent terms, if it is to be eligible.

Regulatory reform should increase transparency in the adoption of laws and regulations. This could be achieved firstly by active involvement of SME representatives in the process of adoption; and secondly, by evaluating the effects of implementation. A systematic evaluation of effects would provide relevant information for further improvement of regulations.

Besides the adoption of specific measures to improve business environment, an adequate implementation of strategic documents requires the improvement of SMEE access to existing and alternative sources of fi-

nance. According to the World Economic Forum's Global Competitiveness Report 2014-2015, Serbia ranked 110 out of 144 countries in terms of finance availability, 121 in terms of finance accessibility, and 132 in terms of entrepreneurial capital availability. In order to improve existing financial sources for SMEs and introduce new avenues of SME financing, a set of measures improving SMEs' access to financial resources under favourable terms should be implemented.

Regular loan repayments reduce the financial flexibility of an enterprise; and if not made on time, can ruin its credit rating and make borrowing in the future very difficult (Đuričin and Beraha 2012, 499). For these reasons, the first improvement measure should encourage banks to issue loans to SMEs under convenient terms. Banks can be encouraged to expand their lending to the SMEE sector through various mechanisms such as a more efficient judiciary, an introduction of reliable credit ratings, an integral registry of credit information, etc.

The development of alternative financing sources is the second improvement measure that ought to be introduced. A legal framework enabling the development of microfinance institutions will reduce the gap between supply and demand for microcredit, improve SMEs' accessibility to finance, reduce poverty and unemployment, boost overall economic growth and development, and result in more dynamic involvement of domestic financial institutions in EU developing programmes (Beraha and Đuričin 2015, 169).

As microfinance aims to provide financial support for initial entrepreneurial ideas, improving access to finance will allow enterprises in later stages of development to obtain loans under more favourable conditions. The most common alternative financing sources include forms of equity finance such as private equity, venture capital, and business angels. The use of alternative sources also requires the introduction of an adequate legal framework in this field as well as more successful implementation of previously adopted measures for business environment improvement.

Successful implementation of measures aimed at improving availability of existing finance support and developing new alternative financing sources require a continuous expansion of SME awareness in financing possibilities

at various stages of its life cycle as well as an enhancement in the financial management skills and capabilities of enterprises.

The next aspect of more successful implementation of strategic documents is related to continuous human resource development. Continuous human resource development is crucial to mitigating the high unemployment in Serbia as well as the key developing problems of the economy. This is because continuous human resource development contributes to economic growth and social inclusion. Consequently, it is necessary to adopt and implement measures supporting the development of entrepreneurial education. The following measures for continuous education of SME sector are proposed:

a) Introducing an appropriate mechanism to follow the needs of SMEs for particular employment profiles.
b) Adjusting formal education with the needs of SMEs for particular employment profiles, inclusion of entrepreneurial education in all levels of the formal education system by engaging highly competitive human resources in this field.
c) Enhancing the necessary skills, competencies and knowledge through the informal education system.

Introducing necessary business profiles and continuous enhancement of SME skills, competencies and knowledge in accordance with the needs of modern economy would have a positive impact on the innovation activities of these enterprises, thus improving the national economy's competitiveness.

The identification of measures for more successful implementation of strategic documents through mitigation of all key weaknesses of the business environment, SME financing obstacles and enhancement of SME knowledge, competencies and skills would lead to more innovation and more dynamic cluster development.

Cooperation and links between the science and business sectors have to be strengthened as well, if the economy is to be regionally and internationally competitive. Thus, the Serbian government should promote the innovation activities of enterprises through implementation of the following support measures:

a) Introducing a national innovation system based on the feedback mechanism between science and businesses.

b) Raising awareness of SMEs on the benefits of innovation for improv-
    ing competitiveness.

The innovation activities of SMEs, i.e. the implementation of new technolo-
gies and investments in product development with higher added value, are
one of the ways of strengthening their competitiveness. Cluster network-
ing is another means of creating surplus value and gaining competitive
advantages. Due to their ability to develop new products in a more ef-
fective manner, highly flexible and innovative SMEs are more likely to get
involved in clusters.

Since clusters contribute significantly to more effective SME operation and
the economy as a whole, the Cluster Development Strategy 2015-2020
was proposed in Serbia in 2015. As Serbia is a small transition economy,
the key clustering benefits contained in this Strategy are:
a) Strengthening competitiveness of enterprises and regions
b) Improving the structure of business activities through restructuring
    and new technology introduction
c) Stronger networking between businesses and public and private re-
    search and scientific institutions

The measures aimed at strengthening competitiveness of enterprises and
regions, new technology introduction and stronger networking, and collab-
oration between businesses and public and private research and scientific
institutions include the following:
a) Cluster mapping
b) Creating a regional map of clusters
c) Promoting cluster development policy
d) Evaluation of cluster activities
e) Cooperation with the EU in cluster policy implementation

A precise definition of tasks has to be drawn up and liable institutions
should be appointed to successfully implement these measures. When
support measures are in place, they would support existing cluster devel-
opment programmes. Together, these measures and programmes would
facilitate interest of the research and scientific sector in clustering, and
encourage more enterprises to participate in clusters. However, there are a
number of obstacles to the efficient implementation of policies and strate-

gies related to cluster operation and development. These are marked by the absence of the following:

a) Coordination and coherency between related policies and participants
b) Supervision and evaluation of policies

To eliminate these obstacles, it is imperative that measures are adopted to improve the business environment, SMEs' access to finance as well as enhance SMEs' knowledge, competencies and skills. Consequently, the mitigation of business environment weaknesses, financing problems, and insufficiently developed knowledge, competencies and skills would lead to more innovation activities and more dynamic cluster development.

3.9.6   CONCLUDING REMARKS

A set of strategic documents was adopted in Serbia in 2000 to promote the development, competitiveness and cluster networking of SMEs. The poor state of the existing business environment, inadequate availability of financing, and low level of human resources and entrepreneurship development have made it difficult to implement these strategies.

The proposed improvement measures, which are expected to facilitate the implementation of strategic documents and contribute to the development of innovative SMEs and clusters, will enhance the efficiency of administrative procedures' implementation and transparency in laws and regulations. In so doing, these improvement measures would promote availability of finance and continuous human resource development.

Two specific measures have been conceptualized to improve the efficiency of administrative processes. The first measure introduces a normative framework for the provision of administrative services, while the second measure requires a service to declare objective, clear and transparent terms before it can be eligible. SME representatives must be involved in the process to increase transparency in the adoption of laws and regulations, as this will lead to a systematic evaluation of the effects of implementation.

In order to improve SMEs' access to financing, a measure was proposed to promote SME activities so as to encourage banks to expand their lending to the SME sector. This proposed measure is to be further bolstered by the

introduction of an adequate legal framework seeing to the development of microfinance institutions and the availability of alternative financing sources such as private equity, venture capital and business angels.

Measures to promote continuous education include following the needs of SMEs for particular employment profiles, and strengthening the system of informal education to enhance the necessary skills, competencies and knowledge.

Successful implementation of these proposed improvement measures would significantly contribute to SME innovation activities and cluster development. SME innovation activities cannot be promoted without the introduction of a national innovation system based on the feedback mechanism between science and businesses, nor can SME innovation activities be endorsed without raising awareness of the benefits of innovation for improving competitiveness. Cluster mapping, regional cluster map creation, promotion of cluster development policy, evaluation of cluster activities and improving cooperation with the EU in the field of policy implementation would considerably aid cluster development in Serbia as well.

REFERENCES

Aćimović, Slobodan, and Beraha, Isidora. 2010. "Klasteri u funkciji razvoja sektora malih i srednjih preduzeća – Odabrana evropska iskustva." In Kraj privatizacije: Posledice po ekonomski razvoj i nezaposlenost u Srbiji, edited by Božo Drašković, 288-301. Beograd: Institut ekonomskih nauka, Beogradska bankarska akademija, Savez samostalnih sindikata Srbije.

Beraha, Isidora. 2012. Alternative za unapređenje razvoja klastera malih i srednjih preduzeća u Srbiji. Belgrade: Institute of Economic Sciences.

Beraha, Isidora, and Đuričin, Sonja. 2011. "Stanje srpske privrede u poređenju sa bivšim republikama dvadeset godina nakon raspada SFRJ." In monograph, 20 godina od razbijanja SFRJ, 275-303. Belgrade: Institute of Comparative Law.

Beraha, Isidora, and Đuričin, Sonja. 2015. "Efekti uspostavljanja pravnog okvira za mikrofinansiranje u Srbiji." In Stvarni pravni život, 157-169. Belgrade: Institute of Comparative Law.

Đuričin, Sonja, and Beraha, Isidora. 2012. "Promoting availability of financing to SMEs in Serbia on the road to EU integration." In European integration process in Western Balkan countries, edited by Paulino Teixeira, Antonio Portugal Duarte, Srdjan Redzepagic, and Dejan Erić, 493-511. Coimbra: Faculty of Economics, University of Coimbra.

Đuričin, Sonja, and Beraha, Isidora.2013. "Innovative activities of small and medium-sized enterprises in Serbia." ERENET Profile VIII, no.2 (June): 44-57.

Đuričin, Sonja, and Pantić, Olivera. 2015. "The Development of Micro-crediting as a Factor of Promoting Women's Entrepreneurship in Serbia." Journal of Women's Entrepreneurship and Education, no.1-2: 50-66. Online at http://www.ien.bg.ac.rs/images/stories/Izdavastvo/Casopis%20 JWE/2015/15jwe12.pdf (accessed 3 February 2016).

Đuričin, Sonja O., Stevanović, Slavica M., and Baranenko, Elena N. 2013. Analiza i ocena konkurentnosti privrede Srbije. Belgrade: Institute of Economic Sciences. Online at http://www.ien.bg.ac.rs/images/stories/ Izdavastvo/IEN/analiza_ocena_konkurentnosti_privrede_srbije13.pdf (accessed 3 February 2016).

European Commission (EC). 2008. "The concept of clusters and cluster policies and their role for competitiveness and innovation." Europe INNO-VA/PRO INNO Europe Paper, no.9, Commission Staff Working Document SEC (2008) 2637. Brussels: EC, p.9.

Erić, Dejan, Beraha, Isidora, and Đuričin, Sonja. 2011. "Financing innovative small and medium-sized enterprises in times of crisis." Revista Romana de Economie (Romanian Journal of Economics) 33, issue 2(42): 59-74. Online at http://revecon.ro/articles/2011-2/2011-2-3.pdf (accessed 20 September 2015).

Erić, Dejan, Beraha, Isidora, Đuričin, Sonja, Kecman, Nataša, and Jakišić, Božana. 2012. Finansiranje malih i srednjih preduzeća u Srbiji (Financing Small and Medium-sized Enterprises in Serbia). Belgrade: Institute of Economic Sciences and Chamber of Commerce and Industry of Serbia.

Hollanders, Hugo, Es-Sadki, Nordine, and Kanerva, Minna. 2015. Innovation Union Scoreboard 2015. Brussels, Belgium: European Commission (EC). Online at http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/files/ius-2015_en.pdf (accessed 15 September 2015).

Eurostat. 2010. "Serbian innovative enterprises by type of innovation." Online at http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do (accessed 18 September 2015).

Ministarstvo privrede, and Nacionalna agencija za regionalni razvoj (Ministry of Economy, and National Agency for Regional Development). 2011. "Izveštaj o Malim i srednjim preduzećima i preduzetnicima 2011 (Report on Small and Medium-sized Enterprises and Entrepreneurship 2011)." Beograd: Nacionalna agencija za regionalni razvoj.

Ministarstvo privrede, and Nacionalna agencija za regionalni razvoj (Ministry of Economy, and National Agency for Regional Development). 2012. "Izveštaj o Malim i srednjim preduzećima i preduzetnicima 2012 (Report on Small and Medium-sized Enterprises and Entrepreneurship 2012)." Beograd: Nacionalna agencija za regionalni razvoj.

Ministarstvo privrede, and Nacionalna agencija za regionalni razvoj (Ministry of Economy, and National Agency for Regional Development). 2013. "Izveštaj o Malim i srednjim preduzećima i preduzetnicima 2013 (Report on Small and Medium-sized Enterprises and Entrepreneurship 2013)." Beograd: Nacionalna agencija za regionalni razvoj. Online at http://www.pks.rs/Documents/Centar%20za%20mala%20i%20srednja%20privredna%20dru%C5%A1tva/Izvestaj%20MSP%202013.pdf (accessed 16 September 2015).

National Agency for Regional Development (NARD). 2015. "Program podrške razvoju inovativnih klastera 2015" (Programme supporting the development of innovative clusters in 2015). Online at http://narr.gov.rs/index.php/Aktivnosti/Podrshka-preduzetnishtvu/Program-podrshke-razvoju-inovativnih-klastera-u-2015.-godini (accessed22 September 2015).

Porter, Michael E. 2000. "Location, Competition and Economic Development: Local Clusters in the Global Economy." Economic Development Quarterly 14(1):15-31.

Privredna komora Srbije, Centar za mala i srednja preduzeća i preduzetništvo. 2015. "Strategija razvoja klastera u Srbiji za period 2015-2020." Belgrade: Chamber of Commerce and Industry of Serbia. Online at http://www.pks.rs/Documents/Centar%20za%20mala%20i%20sred-nja%20privredna%20dru%C5%A1tva/predlog%20strategije%20za%20 razvoj%20klastera%20RS.pdf (accessed 1 October 2015).

Dutta, Soumitra, Lanvin, Bruno, and Wunsch-Vincent, Sacha. 2014. The Global Innovation Index 2014: The Human Factor in Innovation. Fontaine-bleau, Ithaca, and Geneva: Cornell University, INSEAD, and WIPO. Online at https://www.globalinnovationindex.org/userfiles/file/reportpdf/gii-2014-v5.pdf (accessed 18 September 2015).

Vlada Republike Srbije. 2015. "Strategija za podršku razvoja malih i srednjih preduzeća, preduzetništva i konkurentnosti za period od 2015-2020." Belgrade: Serbian Ministry of Economy. Online at http://www.privreda.gov.rs/wp-content/uploads/2015/06/Strategija-mala-i-srednja-preduzeca.pdf (accessed 11 September 2015).

World Economic Forum (WEF). 2014. Global Competitiveness Report 2014-2015. Geneva: WEF. Online at http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf (accessed 3 February 2016).