

CLUSTERS – TOOL FOR ACHIEVING SUSTAINABLE ECONOMIC DEVELOPMENT

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Abstract: In order to adjust procedures in Serbia to the ones of other European countries, a strategic planning of cluster development in Serbia needs to be performed. There are more than 55 clusters in Serbia. Clusters represent significant tool of sustainable economic development. LEDIB Cluster House, an innovative organization, was formed in Nis in purpose of developing clusters all over South-East Serbia, with the mission to establish cooperation of business community organized into clusters and public and scientific-research sectors. Increase in the number of clusters in Serbia indicates that there is a need to create specific training for associates in the area of cluster development in Serbia. By applying the multidisciplinary approach in training of cluster facilitators, based on cooperation of Universities, business organizations and clusters, and with strong support of public sector, LEDIB Cluster House is contributing to creation of expert assistants – cluster facilitators, who will enable professional development of clusters in Serbia, strengthening thus the SME sector competitiveness through support to innovations.

Key words: cluster development, cluster facilitator, training

KLASTERI – ALAT ZA POSTIZANJE ODRŽIVOG EKONOMSKOG RAZVOJA

Apstrakt: U cilju usklađivanja Srbije sa drugim evropskim zemljama, javlja se potreba za strateškim planiranjem razvoja klastera u Srbiji. U Srbiji postoji više od 55 klastera. Klasteri predstavljaju važan alat u održivom ekonomskom razvoju. Inovativna organizacija LEDIB Kuća klastera je osnovana u Nišu radi razvoja klastera na području jugoistočne Srbije, sa misijom uspostavljanja saradnje između poslovne zajednice organizovane u klaster, javnog i obrazovno istraživačko razvojnog sektora. Porast broja klastera u Srbiji ukazuje na potrebu za kreiranjem posebne obuke za saradnike u oblasti razvoja klastera u Srbiji. Primenom multidisciplinarnog pristupa u obrazovanju klastera fasilitatora, zasnovanog na saradnji univerzitetskih institucija, poslovnih organizacija i klastera, a uz snažnu podršku javnog sektora, LEDIB Kuća klastera doprinosi stvaranju stručnih saradnika – klaster fasilitatora koji će omogućiti profesionalni razvoj klastera u Srbiji, a time ojačati konkurentnost MSP sektora kroz podršku inovacijama.

Ključne reči: razvoj klastera, klaster fasilitator, obuka

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1 INTRODUCTION

LEDIB Cluster House, Union of Clusters from South-East Serbia, is an innovative business organization established upon the initiative of seven clusters from the fields of construction, textile, agriculture, medicine and business services. The Organization is supported by major national and international business organizations and University institutions.

Partnership of LEDIB Cluster House with organizations and institutions of national and regional importance such as Serbian Chamber of Commerce and University of Nis is contributing to fulfilment of LEDIB Cluster House vision and mission – to evolve into the national platform for cluster development and become one of key drivers of sustainable economic development in Serbia [1].

The most important aspects of partnership with Serbian Chamber of Commerce, the leading national business organization, are advocating for making and application of national cluster development strategy and lobbying for the interests of Serbian clusters with the representatives of Government and public institutions.

Cooperation with Universities is based on networking of the three pillars of competitiveness development [3]:

- Application of modern scientific and professional knowledge
- Implementation of innovations through R&D
- Inclusion of innovations into businesses (economy) and distribution of information related to good practices

Perquisites for establishing the abovementioned partnership are existence of logistic and human (personnel) resources.

During the stage of establishment, Cluster House created *logistic resources* with technical assistance of LEDIB Programme, whereas in the implementation stage it is working on *strategic development of personnel capacity*.

The need to initiate and develop clusters as one of the most important tools in sustainable economic development in Serbia created the need for establishing a new profession – the one of a *cluster facilitator* [6].

To manage cluster means to manage changes, and that further means having a clear objective,

knowledge, experience, leadership skills, good information and networking.

Knowledge, skills and emotional intelligence of a cluster facilitator will influence the level of support to the cluster, and in that way the progress of its development. That is why training for cluster facilitators represents an important segment of achieving success in strategic development of clusters.

2 CLUSTER AS AN INTERNATIONAL TERM

Word “cluster” comes from the English language, and it stands for a group, flock, pile. “Cluster” is accepted as an international term and is used worldwide. Cluster is “a group of companies closely cooperating in order to achieve strategic collaboration with other companies, public sector and educational R&D institutions, since that kind of cooperation enables achieving of some competitive advantages that cannot be achieved independently by individual companies”.⁴

Clusters are said to represent an important tool in achieving sustainable economic development in developing countries, as well as tool for achieving economic growth in developed countries. That is why cluster as a term has the same meaning all over the world, whereas cluster development concepts in developing countries are different from the ones in the developed countries.

Basically, cluster development is based on systematic and professional approach to identifying potentials and needs of cluster members, and organized activities in order to achieve synergetic effects of collaboration with business environment (other companies, public sector and educational R&D institutions) and satisfy the needs majority of members express.

Importance of cluster development concept application in a country’s economy is demonstrated through creation of values such as achieving of [5]:

- Increased innovation,
- Increased employment,
- Increased economic development,
- More entrepreneurial initiatives.

⁴ Source - “Cluster Learning Trip to Denmark” Presentation, September 20-22, 2011, REG X – The Danish Cluster Academy, Kolding, www.regx.dk

Researches have shown that “71% of companies that joined clusters have improved their competitiveness; increased specialization of clusters increases employment rate at the regional level; companies in clusters are four times more ready to be innovative; companies in clusters are four times more ready to join new R&D projects”⁵[1].

3 CLUSTERS IN SERBIA

There is no reliable way to establish the exact number of clusters because of the way they are formed or the way they stop operating [4].

Clusters keep on developing all the time, starting from activities such as general gathering of companies of certain sector in order to achieve a mutual benefit, through networking and education, knowledge sharing, study tours, trainings, workshops, visits to companies, cluster strategies, branding, cooperation on projects, to analysis of market and trends, industrial analysis, strategic segmentation and strategy (value chain and sub-clusters), innovative cooperation, R&D projects, new business development, project and portfolio management, entrepreneurship, documentation and evaluation, strategic feedback.

By using various data sources like web-pages of Serbian Ministry of Economy and Regional Development, LEDIB Programme, SECEP Programme, Serbian Chamber of Commerce, internet searches etc., LEDIB Cluster House performed mapping of clusters in Serbia, identifying 55 clusters.

Considering industrial presence of clusters in geographic areas of Serbia, in South East Serbia clusters are located in Nis, and they operate in fields such as agriculture, construction, textile, recycling, IT, furniture production, business services and medicine. South-West Serbia is characterized by textile cluster located in Novi Pazar. Central Serbia is characterized by clusters located in Kragujevac – car industry, agriculture – horticulture, construction and furniture production, whereas Kraljevo is famous for tourism cluster. In Loznica, West Serbia, there is a cluster of textile industry. Belgrade is the home of clusters of old crafts, textile, car industry, IT, mechanical engineering industry, medical tourism, wood industry,

recycling, cinematography, real-estate and agriculture – horticulture. In Vojvodina there are clusters operating in fields of agriculture, metal industry, IT, tourism and medicine (figure 1).

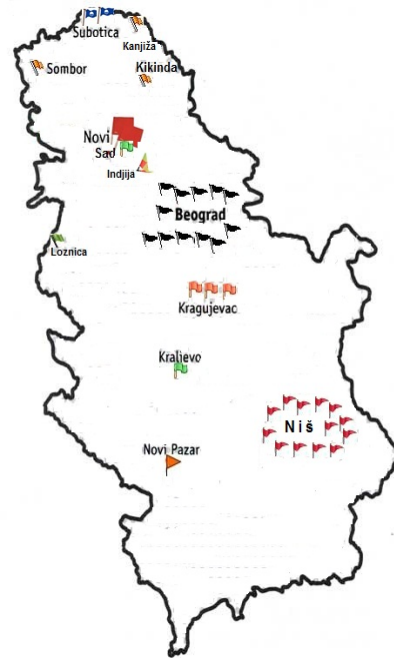


Figure 1. Map of Clusters in Serbia

Examples of successful cluster initiatives in Serbia are Construction Clusters Opeka-Brick, Dundjer and Construction Start up Cluster from Nis, Medical Cluster from Nis, Vojvodina Metal Cluster from Indjija, ISTAR 21 Danube Touristic Cluster from Novi Sad, AS Serbian Car Cluster from Belgrade, Sumadijski cvet (Flower of Sumadija) – cluster of flowers producers from Kragujevac, POLUKS of Kikinda – Cluster of Food Products of Serbia, IKT Vojvodina Cluster from Novi Sad, ReCraft from Belgrade, FACTS Cluster of Fashion Industry from Belgrade, Wood Agency – Cluster of Serbian wood processing companies from Belgrade.

Since 2007, cluster development in Serbia has been supported by Serbian Ministry of Economy and Regional Development, Office for European Integrations, SCC Cluster Council and international organizations through implementation of programs of support to sustainable economic development in Serbia such as Danish LEDIB Programme, Norwegian ENTRANSE Programme, EU SECEP and Progress Programmes, IPA Fund. Cluster development in Serbia is still performed according to programs of

⁵ Source -“Cluster Learning Trip to Denmark” Presentation, September 20-22, 2011, REG X – The Danish Cluster Academy, Kolding, www.regx.dk

international organizations and invitations for project proposals in order to apply for available EU funds.

Considering a large number of cluster initiatives in Serbia, approach to cluster development should be a systematic one. After establishing of the National Cluster Council within Serbian Chamber of Commerce and information- service centre for cluster development in Serbia – LEDIB Cluster House in Nis, it is necessary to implement an organized approach to advocating for cluster interests in Serbia. Organized approach means that National Cluster Development Strategy needs to be framed and implemented as a part of Strategy of Serbia for joining EU.

4 CLUSTER ECOSYSTEM

Three actors play the most important role in the ecosystem of clusters [2]:

1. Companies,
2. Public sector, and
3. Educational R&D sector.

A successful cluster is created by companies ready to embrace the change, strong public sector that understands the importance of cluster, close cooperation among companies, educational R&D institutions and public management, devoted and motivated people who are ready to work together and a professional cluster facilitator.

5 ROLE AND RESPONSIBILITIES OF CLUSTER FACILITATOR

Cluster facilitators and cluster organizations play vital roles in transformation and revitalization of clusters in the country and as such they should:

- Act as agents of changes,
- Point out the need for change and promote innovative cooperation among partners in cluster
- Accumulate knowledge on cluster and global changes clusters come across
- Use and apply data and facts collected from cluster members as inputs for their strategic operations,
- Build bridges to other clusters – at regional, national or international levels – through continuous promotion of new cooperation and innovative partnerships among cluster members.

Cluster facilitator is an associate in development of a cluster operating in a certain industrial sector.

Main responsibility of a cluster facilitator is to comprehend the possibilities and needs of industrial sector through analysis of capacities and demands of members and establishing internal and external networking. Internal networking consists of horizontal and vertical networking of cluster members and supporting institutions within sectors, and external consists of opportunities for cross-border cooperation and networking with similar organizations, initiatives and partners that are important for operations of clusters and their members.

6 TRAINING AND DEVELOPMENT OF CLUSTER FACILITATORS

Strategic development of clusters is based on applying strategic management of personnel contributing to cluster development in the country.

Expertise and knowledge of cluster facilitators are basic resources of each cluster, as they represent basic factor for achieving objectives and additional values to cluster members. Decision making capacity, innovation, creativity, sense of community and team work, awareness on personal responsibility, as well as caring for personal development are important issues in human resources. Assets (property) are also important resources, as they require certain knowledge related to usage, such as identification of needs, project making, assumptions, safe use, maintenance, etc. Important resources are also intellectual property (patents, licences and other), internal norms, quality system as well as information systems. Market globalization and the fast rate of technological development are influencing expanding of the span of various skills required for successful use of cluster resources.

One of the cluster successfulness factors is a selection of a cluster facilitator. That is why the selection of a cluster facilitator should be done in a professional manner, taking all the aspects into consideration – knowledge and skills, motivation, dedication, emotional intelligence, readiness to work on development of his/her own capacities in order to provide the best technical support to cluster development.

Intelligence, character and emotional intelligence are prominent qualities all the people possess. Together they determine how a person thinks and acts. It is impossible to make predictions about one of them

based on the other. People can be intelligent without being emotionally intelligent, and also people with different types of personalities can be very intelligent. Out of the three, emotional intelligence is the only quality that is flexible and subject to change.

Emotional intelligence is a product of the two main skills: social and personal competences. Personal competence is focused more on a person as an individual, and is divided into self-consciousness and behaviour. Social competence is focused on how the

person acts (behaves) with other people and is divided into social awareness and behaviour in internal relations with other people.

A comprehensive systemic approach to the selection of a cluster facilitator will contribute to achieving the highest level of improvement in cluster performances.

Permanent training of cluster facilitators and leading cluster members is of the greatest importance for the progress of clusters (figure 2).



Figure 2. Influence of Education and Development of Cluster Facilitator

Through personal efforts, a cluster facilitator contributes to development of internal and external communication of cluster and benefits for companies – cluster members.

REG X, the Danish Cluster Academy, was formed at University of South Denmark in Kolding due to the need for cluster development in Denmark, and it is a national platform for competitiveness, knowledge sharing and networking of Danish cluster facilitators. The objective of Reg X is to make sure that Danish cluster facilitators are among the best in the world, to promote activities of Danish companies with open innovations in clusters, as well as to develop a world innovative training curriculum (program) in the regional business development.

Since there is a need for organized development of clusters in Nis District, Serbia, LEDIB Cluster House, the Union of South-Serbia Clusters, was formed with support of Danish LEDIB Programme, with a vision

to evolve into Centre for cluster development in Serbia. The need to establish a formal curriculum for cluster facilitators in accordance with economic conditions in Serbia – a developing country, emerged from the need of clusters supported by LEDIB Programme that was accepted by Serbian clusters, members of SCC Cluster Council.

Trainings for cluster facilitators were formalized in a form of special curriculum implemented within four modules during eight months. Upon completion of specialization, participants get Certificates from LEDIB Cluster House and partnering organizations and institutions. Methodology of the specialized curriculum consists of both theory and practice implemented in cooperation with international and local experts. Modules of specialized curriculum for cluster facilitators in Serbia and developing countries consist of the following key areas:

- Cluster Ecosystem. Visibility
- Know thyself⁶
- Communication, motivation and the need to achieve
- Think globally, act locally

Training of cluster facilitators can be continued through appropriate courses like Project Cycle Management and Use of MS Project Application Software, to be applied during career of a cluster facilitator. As Hauron Hug suggests, the best definition of training of a manager is “Change in behaviour through gaining of experience”, meaning that a cluster facilitator will be trained in the best way if trained during “real” situations, for example during the regular activities through tutoring by mentor, through projects and self-analyses.

7 CONCLUSION

Successful development of clusters is influenced by numerous factors: readiness of companies to change themselves, support of public sector to clusters, networking and cooperation of companies, education R&D institutions and public sector, dedication and motivation of people in cluster ecosystems and professional cluster facilitators.

Human factor is the most important in the overall organization and this should be on our mind constantly.

That is why special attention needs to be paid to development of cluster facilitator capacity through specially designed training curriculum, made according to cluster development needs in developing countries. A well-trained cluster facilitator with leadership characteristics, communication skills, good motivation and committed advocating for interests of cluster members can contribute to progressive and sustainable cluster development.

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⁶“GNÓTHI SEAUTHÓN” – according to the Legend, the inscription on Apollo’s Temple in Delphi