

The Need for Standardization in SMEs Networks

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Many SMEs networking initiatives failed because of the absence of trust among companies and between companies and government, leadership and management approaches as well as absence of entrepreneurial skills in managing business networks. Even though local governments or regional agencies have a capacity to mobilize actors from the public and private sectors, generic public initiatives are proved not to be enough. The private sector should also be supported in gathering around joint interests and solving their mutual problems, thus improving business and competitiveness. Research, management and policy instruments to support SMEs will need to have some other directions. Can standardization be one of the directions? The main objective of this paper is to present some aspects of need for standardization in SMEs networking initiatives. The solution to actual or potential matching problems (intended and expected to be used repeatedly or continuously, during a certain period, by a substantial number of parties for whom they are meant) can be formalized as standard. The standard development process can serve as basis for building connections and trust among cluster members. Even though some research emphasizes the role of ad hoc de facto standards as well as standardization in the contexts of achievement of the optimum degree of order in SMEs networks, specific experience is evident in all cases, but experience in design of ad hoc de facto standards and standardization management are still missing.

Keywords: SMEs networking, standardization, ad hoc de facto standardization

1. Some Experiences in SMEs Networking Development

The existence and growth of small and medium sized enterprises (SMEs), as well as development of entrepreneurship, has become increasingly important because of their potential to generate growth and create employment. Of the existing 20 399 291 companies in Europe in 2012, all but 43 454 were SMEs, and 66.5% of the people employed in the private sector in Europe work in an SME (European Commission, 2013). SMEs account for more than 95% of all firms in many countries; they play a major role not only in developed economies, causing SMEs to seek to expand into international markets (Gankema et al., 2000, Chiao et al., 2006). Developing countries provide a socio-economic and cultural context for the development of entrepreneurship which is in many ways different from one in the developed countries. SME exporters in the transition economies encountered export problems related to product quality acceptance and logistics management and, in comparison, SME exporters in the developed economy faced issues such as country differences and general business risk (Neupert, Christopher and Lam Dao T.T., 2006). However, practice and business environment of SMEs differs even among European transition societies. Survey results of Hashi and Krasniqi (2011), compared three advanced transition economies (Poland, Hungary and Czech Republic) and laggard countries (Albania, FYROM, Serbia and Montenegro), and showed that in terms of employment the SMEs sector has contributed significantly more to the economies of the laggard countries (38% compared to 14%).

Some of disadvantages that may influence the market success of SMEs are: size, inability to benefit from economies of scale and scope, informational asymmetry and local focus. The solution to these common problems can be supported by combining SMEs strengths through cooperation and networking. Different modalities of inter-enterprise and enterprise/institutions collaboration can be defined as: horizontal networking (among SMEs), vertical networking (among SMEs and larger enterprises) and clustering where larger concentrations of enterprises operating in the same locality and belonging to the same or complementary sectors (UNIDO, 2001). Some evidence of successful inter-enterprise and enterprise/institutions collaboration

can be found in Europe. The main attributes of successful industrial networks in Europe (Third Italy, Baden-Württemberg in South-west Germany, West Jutland in Denmark) were: geographical proximity, sectoral specialization, predominance of small and medium sized firms, close inter-firm collaboration, inter-firm competition based on innovation, a socio-cultural identity which facilitates trust, active self-help organizations and supportive regional and municipal government (Humphrey and Schmitz, 1995).

The research of IDC (2007) enabled an insight into another context – the context of dynamic and flexible enterprises, with a strong orientation to growth and an optimistic view of their target markets – ICT clusters as local concentrations of ICT SMEs linked with research labs, universities and other knowledge actors. According to this study, the networking environment of the observed ICT SMEs can be aggregated as: the “research networking” environment (including universities, technology parks, research centers); the “business networking” environment (including customers, competitors and other enterprises) and the “services networking” environment (including public agencies, consultants and industry associations). These three groups of actors identify different parts of the value chain, where cooperation usually responds to different goals: in the research environment it is to gain knowledge and develop innovation, in the business environment its purpose is to develop products and services, in the services networking the environment receives services and access to funding. In the conclusions of this study it is mentioned that standards, public procurement, intellectual property rights may significantly help the access to market of SMEs.

The developing of SMEs networking initiatives in transition economies are quite specific. The role of local governments and their regional agencies in SMEs networks developments is dominant. However, many SMEs networking initiatives are initiated by donors - governments or NGOs from the developed countries. The research of Ketels, Lindqvist and Sölvell (2007) pointed at some differences between cluster initiatives in developed and transition economies in Europe:

- there is usually less trust among companies and between companies and government than in advanced economies and donor-initiated cluster initiatives take place where the level of trust among participants in the economy is the lowest;
- while advanced economies tend to focus more on innovation and business environment improvement, developing and transition economy cluster initiatives usually place more emphasis on increasing value added, export promotion and supply chain development and
- in transition economies, donor-initiated cluster initiatives have a narrower range of objectives, focusing mostly on export promotion and increasing value-added.

An example which supports those claims can be found in the case of development of clusters in Serbia. According to the data of the National Agency for Regional Development (study of Mijačić, 2011), SMEs clusters in Serbia were mostly established through the initiative of local governments, supported by financial donations from the Government of the Republic of Serbia and numerous donors. The development of clusters in Serbia started in 2004; in 2011, there were 85 clusters in Serbia, the total number of companies involved in the work of clusters amounted to 917, and they employ around 36 thousand people in total (Mijačić, 2011). Clusters provide different services to their members, general business services prevailing (organization of seminars, trainings and conferences, joint marketing, visits to fairs) and conclusion of the study (Mijačić, 2011) can be systematized as:

- clusters in Serbia are still in the development stage, and their operation capacities are on a quite low level,
- clusters still lack the most basic joint condition, the definition of interest that gathers cluster members,
- companies are usually not active in a cluster's work, and rarely willing to invest their time in cluster activities and
- a majority of cluster initiatives in Serbia have not managed to build trust and close links with their members.

2. Public Initiatives Related to Networking of SMEs

The policy makers in developing countries wanted to enable domestic SMEs to compete in national and international markets without continuing support from governments. However, due to the diversity of SMEs structures, the product and market conditions and leadership and management approaches, generic support policies are unlikely to be effective (Macpherson and Jayawarna, 2007). One example which supports this claim can be found in the case of business incubators development in Serbia.

According to the data of the National Agency for Regional Development (study of Mijačić, 2011) the first business incubator in Serbia, as a business entity which provides physical space for business operations, administrative, technical and other services, mostly to the newly established businesses, potential entrepreneurs or innovative organizations, was established in 2004 (today it is in the restructuring stage with 17% of occupancy). Apart from physical incubation, most incubators provide other business services: general administrative and financial services, joint marketing and participation at fairs, organization of trainings, conferences and seminars, study visits, etc. The conclusion reached in this study is that there is a general impression that the interest of tenants in these services is low. Mijačić (2011) proposed the following recommendations for quality improvement of business incubators:

- define a unique system of criteria and measures of results and quality (fitness for that purpose) of services of different incubators on the national level.
- define the national standard for incubators' business operations as institutions for support to SME development. Standardization will lead to organized business operations of incubators, and furthermore, it will be possible to measure effects achieved by incubators, and easier to compare the success of different incubators.
- improve the work business incubators by standardizing their operations; implementation of standards will use formal procedures and instructions to improve internal processes, such as selection and continuous evaluation of tenants.

In addition to a clear definition of interests that gathers network members together, public initiatives related to networking of SMEs should take into account the local (regional or state) economic interests. Plummer and Taylor (2004) systematized theories on which a "clustering" model is based, in which "clusters" coupled with competitive advantage and productivity are seen as the keys to unlocking a local economic potential. When the drivers of local economic growth have been identified, validated and prioritized, then it might be possible to design effective and appropriate policies and initiatives to promote and sustain that growth (Plummer and Taylor, 2004). The first step in designing the public initiatives in network developing should be a research to find and prioritize the drivers of local economic development as well as find interest groups for their realization.

The problem of absence of trust among companies and between companies and government resulted in the failure of many donor-initiated SMEs network initiatives. Even though local governments or regional agencies have a capacity to mobilize actors from the public and private sectors, generic public initiatives are not enough. The private sector should also be supported in gathering around joint interests and solving their own mutual (matching) problems, thus improving business and competitiveness. In its effort to be successful, a starting point is the company's own interest to be part of the network. The clear definition of interest that gathers together the cluster members should be the basis for establishing network. The cluster or network formed in order to solve real matching problems of their members as well as other parties can build trust among cluster members.

In the area of SMEs as well as in the area of immature entrepreneurial venture in socio-economical situational frame of the transition countries some general policy initiatives failed; networks do not work because of the absence of trust among SMEs; SMEs are not interested in general business services provided by clusters. Research, management and policy instruments to support SMEs will need to follow some other directions. However, calls for standardization are evident. Can standardization be one of the directions?

3. Standardization in SMEs Networks - need for Standardization

Standards are a significant factor in who wins and who loses in the global marketplace and it is hard to win if you do not know the game (Bhatia, 2011). According to Choung, Ji and Tahir (2011), the standardization strategy for developing countries is to "adopt standards first and improve capabilities". The majority of studies on standards and standardization are based on experience and practice of the developed countries. Little explanation has been provided regarding standardization for latecomer countries: "It is quite clear that the international standardization regime has remained an enclave for advanced countries and that the voices and interests of latecomer countries cannot be fully heard in this sphere, due to insufficient capabilities for standardization processes" (Choung, Ji and Tahir, 2011).

The rapid progression of the globalized and increasingly complex knowledge economy not only demands new standards, but also challenges the form of standardization (Blind, 2004). A standard is an approved specification of a limited set of solutions to actual or potential matching problems, prepared for the benefits of the party or parties involved, balancing their needs, and intended and expected to be used repeatedly or continuously, during a certain period, by a substantial number of the parties for whom they are meant (de Vries, 1999). The matching problem is the problem “of interrelated entities that do not harmonize with one another and solving it means determining one or more features of their entities in a way that they harmonize with one another, or of determining one or more features of an entity because of its relation(s) with one or more other entities“ (de Vries, 1999).

In a transition phase to more sophisticated tools for enhancing overall organizational effectiveness, SMEs tend to rely on the implementation and adoption of external available standards such as standards of the International Organization for Standardization (ISO) (Zhou, 2012). However, it is clear that the term of standardization is not related to only institutional or formal standardization (e.g., standardization in formal organizations for standardization such as ISO, IEC, CEN, CENELEC, ETSI,...). If a company needs a standard and a satisfactory standard does not exist, this companies has a number options available in the area of standardization. The company can decide whether to co-operate with other companies and interested parties or not, in order to develop the standard it needs. The next important issue is the usage of standard development infrastructure of standardization development organizations (SDOs). The SDOs include formal standardization organizations, FSO (e.g. international, regional or national), sectoral, professional or specialized standardization organizations (SSO) and governmental standardization organizations (GSO). A de facto standardization is a standardization carried out by non-governmental parties other than FSOs (de Vries, 1999). A growing importance of “de facto” standardization can be seen in many areas because companies cannot operate in isolation, matching problems have to be solved and the process of formal standardization is time consuming. In many cases FSOs or SSOs are not interested in developing the needed standard. Developing the needed standards can be done without support of any SDOs or government – that kind of standardization is called “*ad hoc de facto* standardization”.

In the context of SMEs two issues need to be addressed: their ability adopt or implement international and regional standards and their ability to initiate and take part in the standards development. While SMEs in advanced economies tend to focus more on innovation and business environment improvement, SMEs in the developing and transition economies usually place more emphasis on areas in which compliance with requirements of international or regional standards is common (export or supply chain development) (see more in Ketels, Lindqvist and Sölvell, 2007; Choudrie and Culkin, 2013). However, certain knowledge and experience is needed in adoption or implementation of external standards. Can knowledge about implementation standards be diffused by joint efforts of SMEs in the network? The attempt to provide the joint consulting services in the implementation of requirements of the generic management systems standards ISO 9001 and ISO 14001, for the group of SMEs in Serbia, in 2008th, organized and founded by Regional Chamber of Commerce of Pančevo, had a mixed success. A majority of SMEs have got valuable information needed for a decision to proceed (or not) with the implementation and hire a consultant, however, no single SME has succeeded in establishing their own quality or environmental management system based on joint consulting services. The majority of owners and managers of SMEs claimed that they have to focus on core activities and have no time nor resources to accomplish such a demanding task. Managers of SMEs were very interested in the implementation of management system standards which, by their own opinion, can provide benefits on the market. However, this experience showed that if the focus of SME is on the local market, and if the local market does not recognize the value of standards implementation, managers will lose their interest in standards implementation.

A majority of SMEs from the developing countries belong to the group of passive standard adopters with no capabilities (basically technological) or experience to really contribute in developing formal international standard. However, the network of SMEs can be a valuable initiator and an active party in developing solutions to their own matching problems. The solving of matching problems can be the basic interest that gathers the cluster members together. The network of SMEs formed in order to solve some of the real matching problems of their members can build trust among cluster members. More clearly, involving a member of SMEs network in a meaningful process of specific standards development is the basis for enhancing an active self-help membership, a close inter-firm collaboration and a sectoral specialization.

However, is standardization a possible solution? The needs for cooperation in creating a solution to matching problems in a form of *ad hoc de facto* standards are evident. Right now, there are several projects and initiatives to develop *ad hoc de facto* standards in areas of systematization of job positions in the public companies in Serbia (Čudanov, Mijatović, Săvoiu, 2013), in real estate business as well as in loss prevention management. However, in all cases specific experience is evident, but experience how to design *ad hoc de facto* standard and how to manage standardization is missing. How can a SMEs network benefit from involvement in the *de facto* standardization? If the SMEs can see their interest in solving their problems, if the solution to the problem can support drivers of local economic development and if there are interest groups in finding solution - creating a standard can be one solution. The national organizations for standardization can support those initiatives and provide support services on commercial basis. However, the experience and the know-how are missing.

Conclusion

Many SMEs networking initiatives failed due to the absence of trust among companies and between companies and government, product and market conditions, leadership and management approaches as well as the absence of entrepreneurial skills in managing business networks. The role of local governments and their regional agencies in SMEs network initiatives is still dominant. Even though local governments or regional agencies have a capacity to mobilize actors from the public and private sectors, generic public initiatives are not enough. The private sector should also be supported in gathering around joint interests and solving their mutual problems, thus improving business and competitiveness. In the company's effort to be successful, its own interest to be part of the network is a prerequisite. The clear definition of interest that gathers network members together should be the basis for establishing SMEs network. The cluster or network formed in order to solve real matching problems of their members as well as of other parties can build trust among cluster members. A solution to actual or potential matching problems (intended and expected to be used repeatedly or continuously, during a certain period, by a substantial number of the parties for whom they are meant) can be formalized as a standard. A standard development process can be the basis for building connections and trust among cluster members. Even though some researchers emphasize the role of *ad hoc de facto* standards as well as standardization in the context of achievement of the optimum degree of order in networks, specific experience is evident in all cases, but experiences in design of *ad hoc de facto* standard and standardization management are missing.

REFERENCES

- [1] Bhatia, J., (2011). Summary Report of 2011 Joint Meeting of the APEC Sub-Committee on Standards and Conformance (SCSC)'s in APEC Sub - Committee on Standards and Conformance (SCSC) APEC Committee on Trade and Investment. APEC SCSC Education Guideline 4 - Case Book Teaching Standardization in Universities: Lessons Learned from Trial Program
- [2] Blind, K., (2004). The Economic of Standards – Theory, Evidence, Policy. Edward Elgar Publishing Limited.
- [3] Chiao Y. C., Yang K.P., Yu C. Ju., (2006). Performance, Internationalization and Firm-specific Advantages of SMEs in a Newly-Industrialized Economy, *Small Business Economics* 26: 475–492 _ Springer 2006 DOI 10.1007/s11187-005-5604-6
- [4] Choudrie J., Culkin N., (2013), "A qualitative study of innovation diffusion: the novel case of a small firm and KTP", *Journal of Small Business and Enterprise Development*, Vol. 20 Iss 4 pp. 889 – 912, <http://dx.doi.org/10.1108/JSBED-03-2012-0047>
- [5] Choung, Y.J., Ji I. & Tahir H., (2011). International Standardization Strategies of Latecomers: the cases of Korean Tpeg, T-Dmb, and binary CDMA. *World Development* Vol. 39, No. 5, 824–838
- [6] Čudanov M., Mijatović I, Săvoiu G.,(2013). Multidisciplinary approach to ad hoc de facto standardization: standards and organizational design, *Econophysics, Sociophysics & Other Multidisciplinary Sciences Journal ESMSJ*, Vol III, Issue 1 / 2013, pp 46-52 ISSN: 2247 – 2479
- [7] De Vries, H., (1999). *Standardization – a Business Approach to the Role of National Standardization Organizations*. Kluwer Academic Publishing
- [8] European Commission, (2013). *A Recovery on the Horizon – Annual Report on European SMEs 2012/2013*.

- [9] Erixon F., (2009). SMEs in Europe: taking stock and looking forward, *European View* (2009) 8:293–300, DOI 10.1007/s12290-009-0093-7
- [10] Gankema, G. J., Snuif H. R. & Zwart P. S., (2000). The Internationalization Process of Small and Medium-sized Enterprises: An Evaluation of Stage Theory, *Journal of Small Business Management* 38(4), 15–27.
- [11] Hashi I., Krasniqi B.A.,(2011). Entrepreneurship and SME growth: evidence from advanced and laggard transition economies, *International Journal of Entrepreneurial Behaviour & Research*, Vol. 17 No. 5, pp. 456-487
- [12] Hesser W., Feilzer A & De Vries H. (Ed.) (2007). *Standardization in Companies and Markets* (pp. 621). Hamburg: USA: Helmut Schmidt University
- [13] Humphrey J., Schmitz H.,(1995) Principles for promoting clusters & networks of SMEs, Number 1, UNIDO Small and medium enterprises programme
- [14] IDC European Competitiveness and Innovation Expertise Centre (IDC Italy), (2007). Study on Innovative ICT SMEs in Europe (EU 25), Final Study Report D 5.3, IDC EMEA, 2007
- [15] Ketels C., Lindqvist G., Sölvell Ö., (2006). Cluster Initiatives in Developing and Transition Economies, Center for Strategy and Competitiveness, Stockholm,
- [16] Macpherson A., Jayawarna D., (2007). Training approaches in manufacturing SMEs -Measuring the influence of ownership, structure and markets, *Education and Training* Vol. 49 No. 8/9, pp. 698-719 Emerald Group Publishing Limited, DOI 10.1108/00400910710834102
- [17] Mijačić D. (2011). Analysis of Business Support Infrastructure in the Republic of Serbia, National Agency for Regional Development, 2011
- [18] Neupert K. E., Christopher C., Lam Dao T.T.,(2006). SME exporting challenges in transitional and developed economies, Matlay, Harry (Editor). *Critical Perspectives on the Internationalisation of SMEs*, Bradford, GBR: Emerald Group Publishing Ltd, 2006. p 535., <http://site.ebrary.com/lib/belgrade/Doc?id=10156477&ppg=68>
- [19] Plummer P., Taylor M.,(2004). Entrepreneurship and human capital: distilling models of local economic growth to inform policy, *Journal of Small Business and Enterprise Development* Volume 11 • Number 4, 2004, pp. 427-43, Emerald Group Publishing Ltd, 2004. p 7., [http://site.ebrary.com/lib/belgrade/Doc?id=10073881&ppg=IVATE SECTOR DEVELOPMENT](http://site.ebrary.com/lib/belgrade/Doc?id=10073881&ppg=IVATE%20SECTOR%20DEVELOPMENT)
- [20] UNIDO (United Nations Industrial Development Organization) (2001). *Development of Clusters and Networks of SMEs*, The UNIDO Programme, Vienna, 2001
- [21] Zhou B., (2012). Lean principles, practices, and impacts: a study on small and medium-sized enterprises (SMEs), *Annals of Operations Research*, DOI 10.1007/s10479-012-1177-3, Published online: 06 July 2012.

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