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Building social capital in French "Poles d'Excellence Rurale": the "rural excellency" as a modus vivendi for rural development

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Building social capital in French “Poles d’Excellence Rurale”: the “rural excellency” as a *modus vivendi* for rural development

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Ion Lucian CEAPRAZ¹

Abstract

Our paper emphasizes the role of social capital in French “Poles d’Excellence Rurale (PER). Social capital is considered as highly valuable when considering the development of these particular rural areas. More precisely the French “Poles d’Excellence Rurale” are the perfect example of application of norms and networks that enable collective action and thus create social capital. These PER are functioning on traditional activities and social forms of organization which enables them to be competitive on a specific territory.

We propose to develop and interrogate the role of two concepts already described as the major functional mechanism of a PER: a) the “rural excellency” and the “territorial engineering” (Lardon, Pin, 2007) which form one and a single concept related to the spatial diffusion of economic, social and organizational innovation through territorial competition and, b) the concept of « private-public partnership », a management project developed by several actors able to develop and use various kinds of social networks.

In the first case, the “rural excellency” characterizes the functional core of a PER and is related to the “diffusing effect” of specific comparative advantages of economic and social nature. We mention here the governance as one type of “rural excellency” which allows governments to “outsource” some of its welfare functions to local rural communities (Bifarello, 2002). Thus this process is supposed to initiate a competition between different rural territories followed by a selection among the “best territorial engineered territories” within the process of “territorial engineering”.

In the second case, the “private-public partnership” of a PER implies a bottom-up policy involving local communities and actors with a certain democratic legitimacy and thus supporting partnerships between local actors somehow in opposition with government “top-down” policies.

Our methodology is based on the report entitled “Facteurs de localisation et gouvernance dans les Poles d’Excellence Rurale” developed by CAESAR-AgroSup Dijon, (2009) which emphasize the type of partnership between different actors depending on different “request for proposals” and “expected rural spillovers” for each type of PER.

JEL-Classification: R10, R11, R12

Key words: “Poles d’Excellence Rurale”, Social Capital, Rural Excellency, Territorial Engineering.

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Introduction

This paper deals with the use and interpretation of social capital as an important concept in the definition of a new type of rural development in French rural areas that is the “Poles d’Excellence Rurale” (PER).

There are several definitions of the concept mostly rooted in different theoretical frameworks. Our attempt is to emphasize an empirical definition related to the PER, described basically as rural clusters featuring functional characteristics as “rural excellency”, “territorial engineering” and “private-public partnership”. These functional characteristics refer to interlocking networks of relationships between individuals, groups and institutions which can form the social capital and can behave in three directions: the first and the second one act like a diffusing network of economic and social advantages throughout the rural territory and the third one, which implies a network of private and public partnerships in order to achieve a bottom-up policy on local involvement communities and actors.

First of all I will begin my paper with a brief introduction of the concept of “Pole d’Excellence Rurale” (PER) by setting the context of their creation, rural implantation and expected outcome. Secondly an overview of the definition of social capital is given. There are multiple definitions depending of the context of analysis and “multiple ways in which the context of space, time and other aspects of the general setting are implicated in social capital” (Staber, 2007). At last, we discuss how the social capital change the way these PER perform in rural areas by “a nested setting of structures and process through which individuals perceive, interpret and motivate their actions, and in turn shape context” (Giddens, 1987).

The “Poles d’Excellence Rurale”

The concept of “Pole d’Excellence Rurale” (PER) is a French policy initiative targeting the devitalised rural zones of more than 30 000 inhabitants without any urban area in their proximity. This unique initiative is supported by the local authorities and is based on the government request for proposals launched in France in 2006. Promoting sustainable development through the creation of these PER is a government policy engagement to revive economically the rural areas for the most effective and appropriate way of economic development.

The PER engage the rural areas to be considered as “growth and excellence reserves at national level” and their policy is based on the assumption that even “the less competitive territories dispose of resources which could be valued economically” (DIACT, 2007).

The policy of creating the PER was conducted following the same steps as in the case of the competitive clusters², that is promoting a rural and local competitiveness related to the rural assets and creation and integration of activities into the local tissue³.

Thus, they are basically a form of competitive pole (CP⁴) adapted to rural territory. Two observations can be made here: one from the point of view of the economic development and the request of proposals and second, concerning the spatial scale of implementation.

First, the PER and the CP share a common base concerning the economic development, since the PER is nothing but “a diffusing CP into the rural territory” (Perraud, 2008), but they are

² Competitive clusters focus on innovation as “one of the key factor of the industrial competitiveness; it is all the more effective when its actors are grouped together in entities developing proximity synergies”.

³ Opposed in this aspect to the competitive cluster, the PER prioritizes a “project management developed by several actors” called a “private-public partnership” where different territorial entities are considered as the principal target for the project.

⁴ Competitive clusters and competitive poles are interchangeable terms in our paper.

different in respect of the request for proposals and expected outcome. The PER and the CP must satisfy certain criteria in order to be implemented. On one hand, the policy for the PER on a specific territory is a-priori based on “expected rural spillovers” on the rest of the rural territory and on “leverage effects” on other territories. According to Lardon and Pin (2007), the concept of “territorial engineering” represents the foundation of the PER and involves a competition and a selection among the “best territorial engineered territories”. On the other hand, the competitive clusters will be assigned a label according to a specifications sheet which highlights their agglomeration economies, spillovers effects and international visibility. Second, the comparison between PER and CP is more comprehensive related to the French territory since the policy foundation is partially conducted by the government. By that we mean that the “bottom-up” co-ordination policy in the territory (the same as in the United States’ clusters and strongly opposed to the “top-down” policy) is somehow complemented by two features related to the government: the selection of proposals and the public subsidies.

Overview of the social capital

There is neither a precise definition for the concept of social capital nor an epistemological consensus for a single or general measure of social capital. Everything depends on the context and the way it is applied.

Several pioneer works of Bourdieu (1986), Coleman (1988) and Putnam (1993, 1995) emphasize the concept of social capital as the work of social networks, people, groups or organizations.

The social capital defined by Putnam as “those features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions” (Putnam, 1993) or as “features of social life—networks, norms and trust—that enable participants to act together more effectively to pursue shared objectives” (Putnam, 1995) is crucial in understanding how these PER are developing by putting innovation pressure on their territories through various networks.

According to (Grootaert, van Bastelaer, 2002) the concept of social capital can be also defined as “institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development”.

Thus we prefer to choose as a particular territorial level of analysis in order to have a precise image of social capital, its components and effects in this area.

According to Beekman et al. (2009) “the geographic nature of rural communities has consequences for the type of social capital in rural areas”.

For example there is a definition which came from the economic sociology describing very well the social capital in relation with the territorial context: “a set of social relations of which a single subject (...) or a collective subject (...) can make use at any given moment. Through the availability of this capital of relations, cognitive resources, such as information, or normative resources, such as trust, allow actors to realize objectives which would not otherwise be realized or which could be obtained at a much higher cost. Moving from the individual to the aggregate level, it may also be said, that a particular territorial context is more or less rich with social capital depending on the extent to which the individual or collective subjects of the same area are involved in more or less widespread networks of relations” (Trigilia, 2001).

There is a growing literature on the correlation between social capital variables and important economic outcomes (Glaeser et al., 2002). We do not intend to investigate how is created the social capital in the rural areas but to underline the ongoing effects of social capital that made these PER such a successful story. The performance and outcomes of the PER is highly dependent on the type of social capital which is expected to contribute to the cooperation and innovation (Staber, 2007) of these rural clusters. According to Staber (2007) some recent OECD papers outline that “there is no one model of social capital and no one type of impact on cluster performance” (OECD, 2002).

Social capital within the Poles d'Excellence Rurale

According to Calois & Schmitt (2008) and Rizzi et al. (2010), social interactions and their by-products (trust relations, reciprocity and exchanges) (Beekman, 2009) start at individual level and diffuse at a superior level through relationships and cooperation. Thus a fundamental dimension for social capital immerses from the territory as every territory disposes of its own characteristics (Rizzi et al., 2010). For example, in rural areas this approach of social capital is of a particular importance since development is based on local networks functioning on ‘bottom-up’ policies (Calois & Schmitt, 2008). According to Beekman et al. (2009) the rural areas are “traditionally known for tight social ties and strong community sense” while “the urban areas, social networks are sometimes thought to be of less relevance”.

According to Staber (2007), “theoretical interest in the role of social capital in clusters is matched by the growing enthusiasm in public policy circles for those social features of clusters that are believed to make them a viable response to the pressures of globalization”. Government policies concerning rural development and innovation are more and more turned to investments in social capital seen as a key factor in promoting rural competitiveness.

We propose to emphasize the social capital in the French PER by making comparisons between functional characteristics of a Competitive Pole (CP) and a PER. As already revealed at the beginning, the PER are simply a CP adapted to French rural areas. Bilateral comparisons between the CP and PER would give us important clues about what differentiate mostly a PER concerning the social capital and its by-products: “the rural excellency”, the social forms of organization, the “private-public partnership and the “territorial engineering”.

Competitive and comparative advantages

There are some differences between the competitive advantages and the comparative advantages within a cluster. In our case the competitive advantages are more related with the competitive markets: “lower barriers to entry or simply a large number of firms may give an industry an advantage in competing with foreign rivals” (Gupta, 2009) According to Gupta (2009) “the competitive advantages is just a synonym for absolute advantage: some natural or policy-induced superiority such as lower taxes or greater labor market flexibility”. Thus “competitive advantage is forged both through intensified inter-firm rivalry and geographical proximity”(Bekele and Jackson, 2006).

Strongly linked to the competitive advantage, a cluster comparative advantage “implies that the cluster in question is more productive and more innovative than others” (Tan, 2006). It implies equally different typologies of cluster which could be compared.

Smith argues that “an industry cluster is considered to have a comparative advantage if the output, productivity and growth of a cluster are high relative to other regions” (Smith, 2000).

On the other hand the competitive advantages of a Competitive Pole represent its very logic of creation and functioning. Similarly, for the comparative advantages we have different types of Competitive Poles (like the techno-poles, the historic know-how based poles and the factor endowment poles) which could be more productive one than the other.

Finally, for the case of PER the competitiveness is transforming into “rural excellence” which is opposed to the advantages of concentration and is based on spatial diffusion considered as a major advantage for the rural territory.

Agglomeration effects and spillovers

Agglomeration phenomena and spillovers may vary considerably “depending on economic, technological and geographical distances among firms and regions” (Moreno et al., 2004). For the cluster the concentration of “interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions” (Porter, 2000) which compete but also collaborate determines its competitiveness.

As for the Competitive Poles, the spatial concentration concerns economic actors acting in the same industrial sector. We talk about specialization and the critical-mass of a competitive pole.

In the case of the PER we have a variable degree of socio-economic activities, a high degree of factors related to physical space and traditional activities and social forms of organization. All these elements substitute for the agglomeration effects and are expected to generate rural spillovers based on competition between different territories (territorial competition/ selection among the “best territorial engineered territories”). This is strongly related to the different degrees of rural localization but also to the request for proposals/selection process.

Innovation

The innovation capacity is central to the concept of cluster and “refers to the ability of the cluster to generate the key innovations in products, processes, designs, marketing, logistics, and management that are relevant to competitive advantage in the industries in question” (Enright, 2000).

The policy of the Competitive Poles was lanced in 2004 in order to “reinforce the French industry, create opportunities for developing new economic activities on a global scale and thus making economic areas/territories more attractive and fighting against delocalizations” (Houel, Daounis, 2009). Thus, this policy was based on “reinforcing the competitiveness of the national economy which lies on three key actors of innovation: firms, public and private research facilities and universities” (Houel, Daounis, 2009).

Table 1: Comparison between a Competitive Pole and a Pole d'Excellence Rurale

Competitive pole (CP)	Pole d'Excellence Rurale (PER)
<i>definition and goals</i>	
A competitive pole is an initiative that brings together companies, research centers and educational institutions in order to develop synergies and cooperative efforts Strengthen the competitiveness of the French economy and develop both growth and jobs in key markets through increased innovation, by encouraging high-value-added technological and creative activities and by attracting business to France	A "Pole d'Excellence Rurale" is an initiative sustained by public, private and associative partnership which try to highlight a territory in one of these four comparative advantages (see below) The goal of a PER is employment creation by encouraging research, professional training and use of new technologies
<i>competitive advantages</i>	
Endogenous and exogenous development, request for proposals/Selection over "natural clusters" Competitive pole: decisive competitive advantages over other places A key position in a given economic branch of activity Access to competencies	Rural excellence: spatial diffusion One industry(ies) or technology which is source of competitive advantage Access to natural resources Low costs Different competitive advantages related to different typologies of rural territories and activities
<i>agglomeration effects</i>	
Polarization, urbanization and competitive advantages resulting from proximity Interdependence between activities Scale economies Specialization A critical threshold National/international visibility	A variable degree of socio-economic activities Different degrees of rural localization A project management developed by several actors » called a « private-public partnership » A high degree of factors related to physical space Traditional activities and social forms of organization Local visibility
<i>spillovers</i>	
Agglomeration economies Urban spillovers Vertical links between firms Spillover effects on complementary economic branches	Expected rural spillovers based on competition between different territories (territorial competition)/ selection among the "best territorial engineered territories" Horizontal links between firms
<i>innovation</i>	
Development and technological innovation	Economic innovation but also social and organizational innovation
<i>request for proposals/selection</i>	
Strategy of economic development International visibility Value added activities and R&D synergies Partnership between actors A structured and operational governance	Different evolutions related to natural endowments and urban proximity (access to markets) Selection among the "best territorial engineered territories" The request for proposals was made on projected economic perspectives, innovation and sustainable development
<i>comparative advantages</i>	
Techno-poles Historic know-how based poles Factor endowment poles	Promoting natural, cultural and tourism resources To bring out the bio-resources in a food-chain Supply of local services and residential economy Development of industrial and hand-made manufacturing
<i>geographical scale</i>	

A given geographic area	A variable local geographic area
<i>local, regional, national and international promotion</i>	
Mostly international	Local

For the PER the concept of innovation is very particular since the innovation in rural areas is not only related to the economic innovation but also to the social and organizational innovation.

Request for proposals/selection

There is no request for proposals/selection process in the case of the clusters. At least we consider that this type of policy is specific to the Competitive Pole. Indeed concerning the cluster development strategies there are several types of government involvement and intervention. According to Enright (2000) several categories of government intervention could be mentioned: non-existent, catalytic, supportive, directive, interventionist.

For the competitive pole this policy is based on a strategy of economic development and on structured and operational governance.

As for the PER the request for proposals is made on projected economic perspectives, innovation and sustainable development. It concerns different evolutions related to natural endowments and urban proximity (access to markets). Thus the selection for the PER is made among the “best territorial engineered territories”.

Geographical scale and promotion

Clusters have a spatial concentration which depends on a variety of factors mostly related to the interaction and efficiency among associated institutions and companies. Most of them are regional in nature. Porter (2000) shows that the geographic scope of a cluster is strongly influenced by distance to which these informational and efficiencies occur. Rosenfeld (2001) add that “whatever the scope, the geographic boundaries of clusters are defined by inter-company relationships and not political boundaries”. According to Enright (2000) “the geographic span of a cluster can range from a small area within a city to areas encompassing much of a nation”.

For the competitive pole we have a given geographic scale in the sense that “natural clusters” of activities are selected (through a request for proposals/selection process) on specific territories to constitute the Competitive Poles.

The same procedure is adopted for the PER with a more rigorous request for proposals/selection procedure which give to the PER their local scale.

According to Ketels (2003) analyzing the cluster it is not important for empirical relevance but “to develop a new approach for economic policy that can help to develop regional and national economies”. In this way there is a common agreement within the scientific community regarding the positive effects of a cluster and a less shared opinion about the policy interventions which can generate value through support development and effectiveness (Ketels, 2003). This second opinion need to be taken into account when looking at the competitive pole as a cluster-based economic policy where policy has a very important role by triggering or strengthening development through purposeful political action (Ketels, 2003). The creation and the targeting of specific competitive poles are government policies both available on the French territory through a rigorous selection process. A more rigorous way to

intervene in creating and developing a cluster/CP should be the so-called “cluster activation” (Ketels, 2003) which is “focusing on higher productivity and innovation by mobilizing the capacity of cluster participants to act jointly”. In our opinion this kind of approach should be applied to the competitive pole as soon as it is sufficiently mature by improving or “changing its business environment and institutional structures” (Ketels, 2003). This approach shouldn’t be confused with the regional vision of economic development which seeks to activate clusters by creating these competitive poles and thus “offering possibilities for rectifying the lack of innovation and co-operation that often characterizes French Business” (OECD, 2006). Two major differences should be outlined here that is the role and implication of the network of public actors and the innovation dynamics. According to Castro-Goncalves and Tixier (2007) the institutionalization process is quite different when we look within a French Competitive Pole and a Porter’s cluster. The government is the first actor in the French case while in the second the enterprises (start-up) represent the key to its success. For the Competitive Poles the government practices a strong coercive and normative pressure (see DiMaggio and Powell, 1991) which is strongly opposed to the functioning of American cluster where financial resources are provided by the venture capital and business angels (see Castro-Goncalves and Tixier, 2007). Moreover in France the government plays a major role for the CP by putting pressure on innovation production and on relations among actors (which is not the case for the cluster where relations among agents are historically more solid and more valuable).

Innovation process plays the main role in both cases but while in the case of CP is just an “imposed finality”, for the cluster it represents the “beginning” of its functioning, bringing together different agents (Castro-Goncalves and Tixier, 2007).

Feldman et al., (2005) outline that the nature of innovation could be risky when planning an industrial cluster. In our opinion this kind of approach is similar with that applied to a CP. The author described in fact the nature of innovation when public actors try to create an industrial cluster.

According to Duranton et al. (2008) the centralized policy of subsidies in the CP (related to the deliberated choice of certain industries and firms within specific territories) could hamper the territorial innovation in France. Thus the objective of competitiveness/efficacy for a large variety of labeled CP as well as of industries and territories could be easily confused with that of territorial equity.

The absence of an optimal space’ production from the market forces that should be fulfilled or not by this public policy of intervention on the economic space (Duranton et al., 2008) is another question that should be analyzed when comparing a CP and a cluster.

Concerning the creation of cluster based on policy initiatives authors like De Bresson (1989), Held (1996) and Rosenfeld (1995), emphasize the importance of multiple interactions between sectors rather than a single-sector based cluster.

Conclusion

Social capital in French PER is characterized by some specific functional characteristics inherited from the competitive poles but which behave differently throughout the rural space. These functional characteristics like “rural excellency”, “territorial engineering” and “private-public partnerships” belong to a series of indicators like agglomeration effects, spillovers, request for proposals, etc. which were compared in this paper on the table 1. Further analysis should be made on these characteristics which constitute the *modus vivendi* for the rural development of the “Poles d’Excellence Rurale”.

Bibliography

Beekman, G., van der Heide, M., Heijman, W. J. M., Schouten, M. A. H., (2009), Social capital and resilience in rural areas: responses to change, Mansholt Graduate School of Social Sciences, working paper n° 48.

Bekele, G.W. and Jackson, R.W. (2006), “Theoretical perspectives on industry clusters”, Research Paper, n°5, Regional Research Institute, West Virginia Institute.

Bifarello, M. (2002), “From Delegating to Participation : Third sector and the State in Associative Networks,” prepared for Presentation at the fifth Conference of the International Society for Third- Sector Research, July 7-11, 2002, Cape Town, South Africa.

Bourdieu, P. (1986), The forms of capital, in J.G. Richardson (ed.), Handbook of theory and research for the sociology of education, Greenwood Press, New York.

CAESAR-AgroSup Dijon (2009), “Facteurs de localisation et gouvernance dans les Poles d’Excellence Rurale”, Programme de recherche évaluative sur les « Pôles d’Excellence rurale».

Callois, J-M., Schmitt, B. (2009), The role of social capital components on local economic growth: Local cohesion and openness in French rural areas, 3èmes journées de recherches en sciences sociales INRA SFER CIRAD, 09, 10 & 11 décembre 2009 –Montpellier, France.

Castro-Goncalves, L. and Tixier, J. (2007), “Pôles de compétitivité: les nouveaux “French clusters””? Proposition d’une mise en perspective”, Working paper Université Francois Rabelais, Tours.

Coleman, J. S. (1988), Social Capital in the Creation of Human-Capital, *American Journal of Sociology*, 94, pp. S95-S120.

DIACT (2007), “Programme de recherche évaluative sur les Pôles d’Excellence Rurale (PER)”, appel à projets, janvier.

De Bresson, C. (1989), “Breeding innovation clusters: a source of dynamic development”, *World Development* 17, pp.1-16.

DiMaggio, P.J. and Powell, W.W. (1991), "The Iron cage revisited: institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, vol.48-2.

Duranton, G., Martin, P., Mayer, T. and Mayneris, F. (2008), *Les Pôles de Compétitivité, que peut-on attendre ?*, Editions Rue d'Ulm/Presses de l'Ecole Normale Supérieure.

Enright, M.J. (2000), "Survey on the characterization of regional clusters: initial results", working paper, Institute of Economic Policy and Business Strategy: Competitiveness Program, University of Hong-Kong.

Feldman, M.P., J. Francis, and J. Bercovitz, (2005), "Creating a Cluster While Building a Firm: Entrepreneurs and the Formation of Industrial Clusters", *Regional Studies*, 39: 129-141.

Giddens, A. (1987), *Social theory and modern sociology*. Stanford University Press, Stanford.

Glaeser, E. L., Laibson, D., Sacerdote, B. (2002), An economic approach of social capital, *The Economic Journal* (112 (November)).

Grootaert, C. & Van Bastelaer, T. (2002), Understanding and measuring social capital: a multidisciplinary tool for practitioners. Washington, DC: World Bank.

Gupta, S.D. (2009), "Comparative advantage and competitive advantage: an economic perspective and synthesis", Canadian Economics Association Conference, May.

Held, J.R. (1996), "Clusters as an economic development tool", *Economic Development Quarterly* 10, pp.249-61.

Houel, M. and Daounis, M. (2009), "Rapport d'information sur les pôles de compétitivité constitué par la commission de l'économie du développement durable et de l'aménagement du territoire", Sénat Session Ordinaire n°40

Ketels, C.H. (2003), "The Development of the cluster concept – present experiences and further developments", prepared for NRW conference on clusters, Duisburg, Germany, 5 December.

Lardon, S. and Pin, J.F. (2007), "Réflexions autour du viaduc du Millau", in Lardon S., Moquay P., Poss Y., (ed.), *Développement territorial et diagnostic prospectif*, Editions de l'Aube, p.11.

Moreno, R., Paci, R. and Usai, S. (2004), "Geographical and sectoral clusters in Europe", working paper n°5, CRENoS.

OECD (2006), *Territorial Review in France*.

Perraud, R. (2008), "Les configurations socio-spatiales et temporelles des Pôles d'Excellence Rurale, Master 1 Développement des Territoires et Nouvelles Ruralités", UFR de Géographie

Porter, M. E. (2000), "Location, competition and economic development: local clusters in a global economy", *Economic Development Quarterly*, vol.14, n° 1, pp.15-34.

Putnam, R. (1993), *Making democracy work: Civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.

Putnam, R. (1995), Tuning in, tuning out: The strange disappearance of social capital in America. The 1995 Ithiel de Sola Pool Lecture. *Political Science and Politics*, pp. 664-683.

Rizzi, P., Pianta, R., (2010), Social capital and regional development in Europe, Facoltà di Economia Università Cattolica di Piacenza, working paper.

Rosenfeld, S.A. (1995), "Industrial strength strategies: regional clusters and public policy", Washington, Aspen Institute.

Rosenfeld, S.A. (2001), "Backing into clusters: retrofitting public policies, in Integration pressures: lessons from around the world conference proceedings", J.F. Kennedy School Symposium, Harvard University, March 29-30.

Smith, R. V. (2000), "Industry cluster analysis: inspiring a common strategy for community development", Central Pennsylvania Workforce Development Corporation.

Staber, U. (2007), "Contextualizing research on social capital in regional clusters", *International Journal of Urban and Regional Research*, n° 31/3.

Tan, J. (2006), "Growth of industry cluster and innovation: lessons from Beijing Zhongguancun Science Park", *Journal of Business Venturing* 21 (2006), pp. 827– 850.

Trigilia C., (2001), *Social capital and local development*, *European Journal of Social Theory*, 4, 427-442.