Volume 31.4 December 2007 836–52 International Journal of Urban and Regional Research
DOI:10.1111/j.1468-2427.2007.00757.x

The Role of Dynamic Capabilities and Social Capital in Breaking Socio-Institutional Inertia in Regional Development

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Abstract

A shift in the techno-economic paradigm will affect regions; regions, however, are path-dependent units. This path-dependency often leads to considerable socio-institutional inertia in the process of transformation whereby regions aim to remain competitive in the face of worldwide competition. The present article assesses the role of the dynamic capabilities of social capital in the process of regional adaptation. A survey conducted in the Lahti urban region in Finland is used as empirical data. The results of the survey reveal the respondents' fairly good awareness of the prevailing techno-economic paradigm and of the strong socio-institutional inertia confronting change in practice. The results suggest, however, that there are systematic differences in responsiveness between local politicians and other decision-makers. The study concludes with a discussion of the relevance of shared common views on the development needed within the region.

Introduction

During certain cycles, the world economy encounters shifts in the techno-economic paradigm caused by leaps in technological development. During the last century, the world lived through the change from the agricultural era to the industrial era. Nowadays, the world is changing from the industrial era to the information era. A number of theories have been developed to understand the regional adjustment processes that take place when the paradigm shifts. For example, the theories of evolutionary and institutional economics (see e.g. Boschma, 2004), of clusters (see e.g. Porter, 1998) and industrial districts (see e.g. Piore and Sabel, 1984), and of innovation systems (see e.g. Nelson, 1993), as well as the resource-based view of regional strategies (see e.g. Harmaakorpi, 2006), provide different views of the adjustment process that takes place in the regions. These theories emphasize the incremental evolution and development of regional institutions, systems and economic structure as the driving forces of the change.

The regions' success is strongly affected by their adaptability to the emerging techno-economic environment. This adaptability depends strongly on their existing resources and their capabilities for renewing these resources. Therefore, this article starts out from the resource-based view of regional development, where regional competitive advantage is seen to derive from unique resource configurations. These configurations must, however, be renewed over time in order to keep them competitive. The framework of

dynamic capabilities (see e.g. Teece *et al*., 1997; Eisenhardt and Martin, 2000) focuses on the processes intended to bring about this renewal. Dynamic capabilities also play an important role in avoiding lock-ins and resource rigidities. These particular sources of socio-institutional inertia arise from the path-dependent nature of regional resources. Path-dependency is, in turn, a result of the fact that regional resources are gained through historical development. Therefore, path-dependency must be considered one of the basic elements in regional development and as one of the main factors causing inertia (Maskell and Malmberg, 1999; Harmaakorpi, 2004: 108).

This article argues that renewing the 'social resource configurations' is important in trying to avoid or mitigate socio-institutional inertia within regional development networks. The resource-based view of social capital (see Tura and Harmaakorpi, 2005) assesses the necessary attitudes and abilities enabling dynamic capabilities in regional development through the lens of social capital. The level and nature of regional social capital in regional networks can both promote or prevent necessary regional change.

Objectives of the study

In this study we seek to illustrate the challenge a region faces in its development work. Like any network organization, a region is a setting where many opinions and contrasting ideologies are held. The objective of this article is twofold. First, we attempt to describe the role of dynamic capabilities and social capital as vehicles for mobilizing a stagnant region to development work. Second, we analyse the regional actors' level of understanding on the prevailing state of affairs in the region and the development issues the region is facing.

Research methods and materials

The study presents an analysis of a survey targeted at the key local people taking part in the decision-making processes that affect regional development work. Although the focus of interest in the study is the qualitative differences between different opinions, the quantitative method was chosen to provide a wider picture of the regional decision-making system. The sample survey used for this purpose produced 155 responses, equivalent to a response rate of 43%. In the survey, actors in the regional development network were asked to rate the importance of certain issues for regional development in general, and, on the other hand, the extent to which these issues were realized in the prevailing development environment. After studying the respondents' views on the present state of development and the development steps needed, we conduct a factor analysis of the present state views. Finally, we compare the factors that emerge to the background measures of the respondents.

Social capital as a regional resource

One way to understand the cornerstones of competitiveness is to apply the resource-based approach (Penrose, 1959; Wernerfelt, 1984). The resource-based approach assumes that economic actors can be conceptualized as sets of resources and capabilities, and that resource differences persist over time (Mahoney and Pandian, 1992; Amit and Schoemaker, 1993). Should economic actors have resources that are valuable, rare and inimitable, they can achieve a competitive advantage by implementing value-creating strategies. The sustainability of the competitive advantage arises from a configuration of resources and capabilities that are difficult for other actors to duplicate (Wernerfelt, 1984; 1995; Barney, 1991; Nelson, 1991; Peteraf, 1993; Conner and Prahalad, 1996).

The resource-based view can also be applied in a regional context (see e.g. Porter, 1990). Over the years, the regions have created a resource base intended to provide them with competitive advantages against other regions. Regional resource configurations include combinations of natural, physical, social, cultural and intellectual resources, for example. Natural and physical resources are still important, but their relative importance in building regional competitive advantage is constantly diminishing.

Dynamic capabilities form an essential part of the resource-based view. Nevertheless the strength of the resource base, the resource configuration, needs to be renewed continuously. The framework of dynamic capabilities (see Teece *et al*., 1997) offers a fair basis for assessing the capabilities needed in the transformation of an actor. Dynamic capabilities can be defined as the processes within an organization that use resources, especially processes that integrate, reconfigure, gain and release resources to match, and even create, market change. Dynamic capabilities, thus, are the organizational and strategic routines by which actors achieve new resource configurations as markets emerge, collide, split, evolve and die (Eisenhardt and Martin, 2000: 1107). In fact, dynamic capabilities relate to an actor's ability to innovate, since 'the production and use of knowledge is at the core of value-added activities, and innovation is at the core of firms' and nations' strategies for growth' (Archibugi and Michie, 1995: 1). By renewing and helping to exploit regional resources, dynamic capabilities also play an important role in solving regional lock-ins and reducing socio-institutional inertia. Inertia arises, for example, from sticking to a declining industry or to a prevailing operational model characterized by routines and stable social relationships.

Unlike the bulk of resources, dynamic capabilities are not idiosyncratic in nature and therefore there are best practices in dynamic capabilities that should be relatively easy to imitate (Eisenhardt and Martin, 2000). It is evident, however, that there are notably idiosyncratic features in dynamic capabilities at the regional level. This conclusion is supported by the quite different success trajectories among regions with seemingly similar resource bases (see Harmaakorpi, 2004).

Resource configurations can be varied and can include rather abstract elements. One of the most important resources is social capital. According to Putnam, social capital 'refers to features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating co-ordinated actions' (Putnam, 1993: 167). In general, social capital refers to the possession of social relationships and membership in collectives, and to the resources that derive from these.

Tura and Harmaakorpi (2005) present the resource-based view of social capital: they consider social capital to refer to that portion of an actor's resources, that is located in the actor's social relationships (Tura and Harmaakorpi, 2005: 1116–7).[1] The resources that make up social capital enable certain actions or make certain objectives obtainable that would have been impossible or unattainable without them (*cf*. Nahapiet and Ghoshal, 1998: 244). This view comes close to Lin's (2001: 29) definition of social capital as 'resources embedded in a social structure that are accessed and/or mobilized in purposive actions'. This means that social capital is a capability-like resource: it is closely connected to the things we *can do*, while, for example, physical capital is more about things we *have*. It is also dispositional: it can exist even if it is not exercised, or even recognized, at a given moment.

In Tura and Harmaakorpi's view, social capital is connected to an actor's capacity for action and possibilities of action. The capacity for action of an individual or collective actor consists of different resources that the actor utilizes and applies to his or her actions. One group of these resources is the actor's position and relationships within social structures and networks: his or her social status, the kind of friendships that he or she has, and the kind of cultural and value-based communities to which he or she belongs. Tura and Harmaakorpi (2005) call this combination of the actor's social resources his or her social capital. Through social capital an actor has the capacity to

1 An actor can here be collective as well as individual.

mobilize other actors and their resources. Defined in this way social capital is strongly connected to action. It is 'material' an actor may use in his or her action. At the same time, it can limit some other action and possibilities.

The role of social capital in regional development seems to be two-edged. On the one hand, it has been said to have a positive effect on regional development and renewal processes, the key elements for socio-institutional adaptation. On the other, Florida *et al*. (2002), for example, argue that places with high social capital are the worst places for innovation and creative processes. Likewise, Frombold-Eisebith (2002: 8) considers social capital and innovative milieu to be opposing concepts: she states that the general purpose of social capital is 'to sustain elements of stability and reliability in an environment of change'.

The form of social capital needed in the regional development environment is best described as 'creative social capital'. In the regional development networks this is a field-specific resource. It includes the elements of creative tension (Sotarauta and Lakso, 2000) and it supports the necessary socio-institutional change caused by techno-economic development. It is also a balanced amalgam of bridging and bonding social capital (see Putnam, 2000: 22–4). Bridging social capital creates bonds of connectedness formed across diverse horizontal groups, whereas bonding social capital connects only the members of homogenous groups (Granovetter, 1985; Putnam, 2000). Tura and Harmaakorpi (2005: 1121) argue that if there is only bonding social capital in the network, this may lead to unwanted results because of a decrease in absorptive capability. Such social capital can lead to a closure of the network and collective blindness. (Closure, in Tura and Harmaajorpi's terms, refers to the way a network separates itself from its environment: the members have close relationships within the network, but only a few or loose relationships with the actors outside the network. Collective blindness, on the other hand, refers to the way a network may collectively focus on the wrong things.)

When moving from the individual level to the innovative capability of a community, an organization or a network, the role of social capital changes significantly. It is not only one resource among others, but is also located at the centre of the whole innovative capability. Social capital is a resource which gives an organization or network the capacity to utilize the material, economic and intellectual resources of the whole collective, as well as social resources reaching outside the collective (Tura and Harmaakorpi, 2005: 1119).

The role of dynamic capabilites in renewing the regional resource base

At the regional level, dynamic capabilities are defined as the region's ability to generate competitive development paths in a turbulent environment. Dynamic capabilities aim to reform regional resource configurations based on the history of the region and opportunities emerging from the techno-socio-economic development (Harmaakorpi, 2004: 110).

Networking capability

Castells (1996) has formulated a systemic theory of the information era that takes into account the fundamental effects information technologies have on the contemporary world. He is interested in the emergence of a new social structure, which he labels a network society. The main logic of the ongoing development in the information era, both in a space of flows and in a space of places, is the logic of networking. In the network-based society, the coordination of social actions increasingly takes place in networks. Being a successful part of worldwide networks becomes an essential success factor in the network-based society. Accordingly, it is important to be able to develop a creative

networked-based regional development environment in order to increase regional competitiveness in international competition.

A network-based organization can be an internally network-based organization such as a decentralized organization, or it can be formed from independent organizations connected by means of partnerships. In the case of a regional development environment, the importance of organizations of the latter type is emphasized. In a network-based organization, each actor has its own role and functions: the actors are specialized, also at the international level. As Sotarauta (1999: 104–5) suggests, network actors can have different motives for their cooperation. A network can be seen, for example, as a channel, as a way to minimize expenses or as a strategic tool. Interaction and cooperation are expected to be rich. In this context, the critical question is how is it possible to create a trusting atmosphere in these networks in order to achieve positive externalities in the interactive and joint development processes. Planned cooperation can take place in setting objectives, forming strategies, producing products and serving customers.

Networking capability connected with social capital seems vital for regional development. Its importance arises from its capacity to break possible lock-ins and reduce the socio-institutional inertia that has developed because of too much bonding social capital, for example. Regional networking capability can be defined as a regional development network's ability to build interactive networks including field-specific creative social capital leading to effective utilization of the resource configurations in the networks (Harmaakorpi, 2004: 112). Networking capability helps regional actors increase interaction and cooperation and build trustful relationships and a sense of communality, as well as helping individual actors specialize and choose external partners also at the international level.

Leadership capability

Network leadership is growing in importance within regional innovation systems. Network leadership could be defined as action that leads all the operations and resources of the network in the desired direction. Borja and Castells (1997) have reflected on the factors involved in creating a successful regional network. They identify leadership as one of these factors, suggesting that leadership refers to the ability to organize complex projects, to manage conflicts and anomalies, as well as to process and disseminate information worldwide. Stewart (1986) describes leadership in regional development in terms such as information management, choice, flexibility, responsibility and politics. Traditional management can be described using such words as control, standard, stability, parallel, profession and task. The new leadership tries to create a learning and innovative economy in the region and includes an active interpretation of signals for change.

Sotarauta (1999: 30) identifies the essential characteristics of leadership in a regional development environment. According to him, leadership acts as a mediator in interaction between different actors. In addition, network leadership directs activities to seek out common goals. Essential features for network leadership are negotiation, communication, persuasion, trade and visionary skills (*ibid*.: 110). The communicative strategy of a multi-actor and multi-goal environment needs creative and goal-seeking leadership.

Traditional management emphasizing common visions and strategies does not fit very well with network-based regional development (Linnamaa, 1999). Traditional management does not take the split power and learning in a loose network sufficiently into account. In regional development, leadership deals with many goals and strategies. Actors in the regional innovation system take part in several kinds of network. These can be very different in nature. This requires different capabilities from actors coming from different backgrounds.

The role of leadership capability becomes decisive especially when preventing lock-ins and trying to find new paths out of lock-in situations. (Kotter, 1988; Sotarauta, 1999.) Leadership capability in a networked regional development environment can be defined as the ability, within that environment, to effectuate actions that steer the processes and resources of the system in the desired direction and avoid harmful lock-ins. Regional leadership capability is needed to create a good conversation culture, to combine different opinions, to achieve common decisions and to ensure that people stick to the joint decisions.

Visionary capability

Sensing changes in the environment presupposes the ability to make use of future-oriented knowledge. The surrounding environment continually gives weak and strong signals of future development trajectories. The need to outline potential futures has increased in recent decades, since the regions have changed from being objects of state-led regional policies to the subjects of competitiveness policies. As a result, the regions' own role and responsibility have increased. In the new multi-level governance structure, the regions meet a new kind of process and programme-based environment (Vartiainen, 1998; Sotarauta and Mustikkamäki, 2001), where they are expected to take initiatives to build successful development trajectories. There is a need for new visionary thinking.

In the process of conceptualizing the future, the public's (or consumers') role is also about to change. Instead of the role of the 'old passive subservient', the public is an active customer of the regional facilities. This places new demands, for example, on public and semi-public services: culture, health care, day care, etc. Regional public service consumers make choices like any other consumers and their strong and weak signals should guide the development work of the regional services. For a short time they may even be satisfied with a lower level of services, but in the long run low levels of service could be dangerous for regional development. When talking about consumption, there is an increasing temptation to consider things like regional brand and regional image. In many cases, it is suggested that fulfilling the needs of regional public service consumers leads to higher regional brands. A good regional brand, again, increases the chances of attracting experts and knowledge-intensive firms, enabling regional economic growth.

Closely related to regional visionary thinking is regional innovativeness. The new future trajectories need to be innovative in order to sustain the competitive advantage of the region. However, innovation in the information era is rather different from innovation in the industrial era. Nowadays, innovation is considered to be most often a result of cooperation in normal social and economic activities. Consequently, innovations are made in networks where actors from different backgrounds are involved in creating a new demand for innovativeness. Here the science push effect as the driving force of innovations is the exception rather than the rule. Instead, the drivers of innovation are likely to include the ability to interact and build trust relationships between the innovating partners. Innovativeness mostly depends on the innovation network's ability to interact rather than on an individual actor's progress in a particular scientific field.

Thus, the regions need a special dynamic capability: visionary capability. In this context visionary capability refers to an actor's ability to outline the possible potential development trajectories based on paths travelled and utilizing the opportunities emerging as the techno-economic paradigm changes (Uotila *et al*., 2006: 3). One must be able to make use of future-oriented knowledge and take advantage of future opportunities. Visionary capability should make it possible to enhance regional visionary thinking, understand the needs of customers and promote regional initiative activities and a different kind of innovativeness in the networked regional development networks.

The empirical study

In this study we analyse the dynamic capabilities and social capital of a specific region that could be regarded as subject to major political lock-ins and socio-institutional inertia.

The Lahti region is situated in Southern Finland, about 100 kilometres from Helsinki. It comprises twelve municipalities, and has about 200,000 inhabitants, equivalent to 4% of the Finnish population. Its geographical and functional centre is the city of Lahti, which has about 98,000 inhabitants, making it the seventh largest city in Finland. Among the municipalities in the region, the differences — in surface area, population density, and industrial structure, for example — are considerable. The population and industries, especially manufacturing, are concentrated around the cities of Lahti and Heinola. The rest of the region is characteristically rural and sparsely populated.

The Lahti region has shown considerable growth in its history but recently it has been rather stagnant. Its population region doubled from 1940 to 1975, but it was strongly affected by the collapse of the Soviet Union and the deep economic recession in Finland in the early 1990s. In 1990, there were 90,370 jobs in the region. The number of jobs dropped over the next couple of years, so that in 1993 there were fewer than 70,000. Since then the number of jobs has slowly increased, and there were about 81,000 jobs in 2004. The Lahti region population slowly decreased from 1992 to 1999, but began to increase again in 2000.

With a relatively high unemployment rate and the status of a declined industrial area, the Lahti region is one of the European Union Structural Funds Objective Two regions. Among its main problems are the low number of highly educated people and an exceptionally low level of research and development spending. In 2005, the research and development expenditure in the region was about 258 euros per capita, while the average for Finland was about 1,040 euros. Furthermore, the gap between the different regions in the country is growing constantly. It seems that the region is unable to compete with other regions, at least with traditional methods of innovation.

Research setting

The study presents an analysis of a survey targeted at the key local people taking part in the decision-making processes of regional development work. In particular the study seeks to increase the level of understanding of the reigning techno-economic paradigm and evaluate the way in which the demands of the new techno-economic paradigm have been adopted in the Lahti Region.

The research setting is based on the bidirectional relationship between dynamic capabilities and resource configurations (see Figure 1). With the help of dynamic capabilities the regional resources are renewed, and new resources can also be created. The resources act like fuel or construction material for regional development work that is exploited with the apparatus of dynamic capabilities. The value of dynamic capabilities for competitive advantage lies in their ability to alter the resource base: create, integrate, recombine and release resources (Eisenhardt and Martin, 2000: 1116). Long-term sustainable competitiveness is, therefore, said to lie in resource configurations built using dynamic capabilities, not in the capabilities themselves (*ibid*.: 1117) Three types of dynamic capability were identified as important in maintaining the competitiveness of the regions in the changing environment: leadership capability, visionary capability and networking capability.

Although the study is focused on qualitative differences between different opinions, the quantitative method was chosen to provide a wider picture of the regional decision-making system. Whilst qualitative analysis would be able to provide in-depth evidence regarding the specific complexities of regional development, the quantitative survey is an effective tool for describing current issues, comparing respondents' views in a wider context and, finally, identifying relevant empirical groups for further analyses.

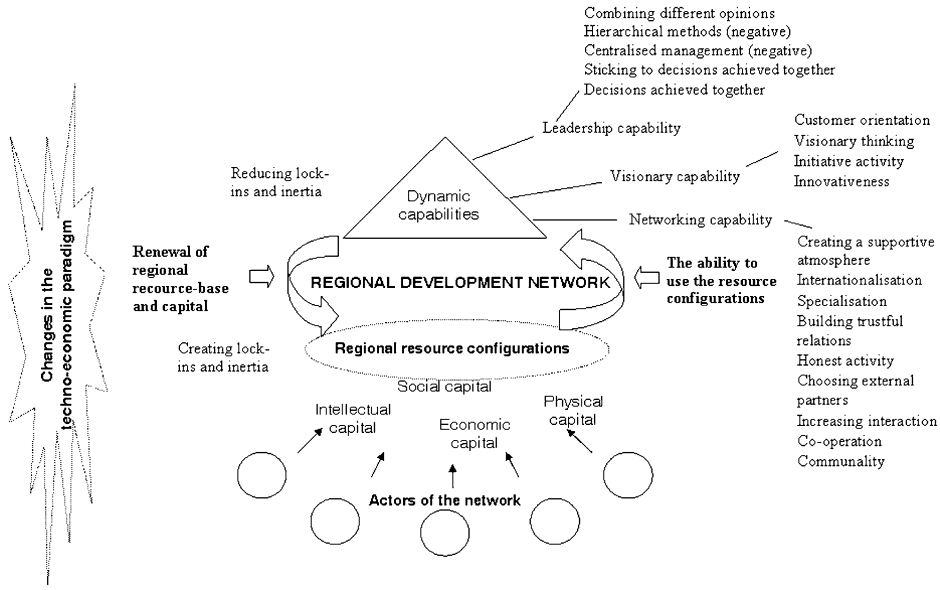

Figure 1 Framework for the study: bidirectional relationship between dynamic capabilities and regional resource configurations in reacting to the changes in the techno-economic paradigm

Based on the theoretical analysis in this study, a tool for measuring regional capabilities of adaptation was formed for the following analysis. The attitudes to these variables can be seen to reflect the atmosphere in which the development process takes place in a region. In this study the following variables are used to describe the three dynamic capabilities needed in the regional development:

Visionary capability

- initiative activity
- visionary thinking
- innovativeness
- customer orientation

Leadership capability

- combining different opinions
- hierarchical methods (- negative)
- centralized management (- negative)
- sticking to decisions achieved together
- decisions achieved together

Networking capability

- choosing external partners
- building trust relationships
- increasing interaction
- creating a supportive atmosphere
- internationalization
- specialization
- cooperation
- communality
- honest activity

Table 1 Background characteristics of the respondents

	No.	%
Total	155	100
Position		
1 Development, research or education	42	27
2 Politician	72	47
3 Company representative	19	12
4 No data available	22	14
Municipality		
1 Metropolis Lahti	70	45
2 Second chain Hollola and Nastola	30	19
3 Others	35	23
4 No data available	20	13

A questionnaire measuring overall attitudes, opinions and ideas concerning the new regional development environment was drafted. The questionnaire was sent to 360 actors in the Lahti region, 155 of whom responded. The response rate was 43%, which might be considered satisfactory.

Table 1 presents the respondents' characteristics. The respondents were decision-makers and developers from different public and private organizations, as well as politicians, in the Lahti region. Roughly half of the response consists of politicians, that is, members of the local municipality councils. The local authorities, development agencies and research organizations were represented by 42 respondents or 27% of the response. The response also included 19 top managers from the major local private companies. Their participation in the sample is of primary importance as they are actively participating in local business development through various development projects and as customers of the public development organizations. Finally, 22 respondents failed to indicate any specific role they play in the local development arena.

Analysis

In the survey, the main interest focused on the decision-makers' perceptions of regional development. The respondents were asked to rate the importance of the issues for regional development in general. The results in Table 2 show that the respondents consider honest activity, joint decisions and creating a supportive atmosphere as the most relevant issues to follow in the regional development work. Together these issues reflect the importance of social capital and network leadership as beneficial characteristics of the individual developers and development organizations in the region. On the other hand, hierarchical methods, centralized management, combining of different opinions and communality rated lowest in the analysis.

In general, the analysis above suggests a rather wide array of development measures are considered favourable for regional development work. Altogether 11 items received a value higher than 1.40 and only a few measures are clearly identified as unfavourable. This could mean two things: either those measures can all be useful in development work or the respondents do not recognize the semantic differences between the measures. However, since the respondents represent a sample of the main decision-makers in the region, it is likely that they are well aware of the meaning of the different development measures. In terms of socio-institutional inertia, the case seems interesting as there

Table 2 The descriptive statistics of regional development measures, range 0–2 (n 155)

	Mean	Sd.
Honest activity	1.78	.42
Joint decisions	1.70	.50
Creating a supportive atmosphere	1.69	.50
Building trustful relationships	1.61	.50
Sticking to joint decisions	1.61	.54
Innovativeness	1.55	.57
Customer orientation	1.54	.56
Cooperation	1.53	.55
Increased interaction	1.49	.53
Initiative activity	1.47	.47
Visionary thinking	1.40	.62
Specialization	1.13	.55
Internationalization	1.13	.71
Choosing external partners	1.04	.59
Communality	1.00	.67
Combining different opinions	.50	.62
Centralized management	.27	.54
Hierarchical methods	.13	.37

inevitably are a number of interchangeable development measures to be considered and that may lead to conflicting interests in the minds of the decision-makers.

In the survey, the respondents were also asked to evaluate the current situation in the local regional development work. Table 3 shows that overall the scores are relatively low. Among the items, hierarchical methods, centralized management, internationalization and honesty score highest. On the other hand, visionary thinking, building trust relationships and creating a supportive atmosphere score lowest.

The analysis shows that the differences between the measures are apparently small, with the exception of the first two measures. The high ratings for centralized management and the hierarchy suggest a fairly unanimous perception of the current state of affairs in the region. It should be borne in mind that the sample includes decision-makers in various positions of administrative power and that they also represent different municipalities in the region, both the leading municipality and the peripheral municipalities. Thus, the response could reflect some criticism against, for example, regional administrative organizations or the largest municipality in the region guiding the development. Nevertheless, the table suggests that compared to the ideal state of affairs the current situation is much worse.

To understand the relationships between the local regional development issues and to enable further analyses, a principal component analysis was conducted (see Table 4). An exploratory analysis with Varimax-rotation produced five factors, explaining the moderate 60% of the total variance.

Factor 1: The first factor accounts for 31% of the total variance of the data, with seven loadings higher than 0.40. The factor stresses the importance of making decisions and sticking to the joint decisions. The items ‘creating a supportive atmosphere’, ‘honesty’, ‘creating trustful relationships’, and ‘increasing interaction’ confirm the interpretation

Table 3 The descriptive statistics of local regional development measures, range 0–2 (n 155)

	Mean	Sd.
Hierarchical methods	1.22	.60
Centralized management	1.18	.70
Internationalization	.76	.58
Honest activity	.74	.61
Initiative activity	.66	.57
Sticking to joint decisions	.66	.60
Increasing interaction	.65	.58
Specialization	.64	.59
Open sharing of information	.61	.59
Choosing external partners	.61	.55
Combining different opinions	.57	.60
Customer orientations	.55	.59
Joint decisions achieved together	.54	.62
Cooperation	.52	.57
Communality	.51	.58
Innovativeness	.49	.56
Visionary thinking	.48	.59
Building trustful relationships	.41	.52
Creating a supportive atmosphere	.36	.58

that the factor deals with togetherness and relationships that should be valued and respected. As such the factor could be labelled *bonding social capital*.

Factor 2: The second factor represents 8.71% of the total variance, and as such it seems to form a clear pattern of regional development. The items that loaded high in the component are 'visionary thinking', 'customer orientation', 'innovativeness' and 'initiative behaviour'. These all deal with the need for creating new openings and questioning the relevance of earlier solutions. Together, these items reflect entrepreneurial and proactive behaviour in regional development work and the factor can be labelled *creative social capital*.

Factor 3: The third factor received two loadings above 0.40, capturing 7.47% of the total variance. Interestingly, 'centralized management' and 'hierarchy' loaded in the same factor, suggesting that they are, in fact, perceived as complementary. Together they reflect the idea of managing the region like a single organization, with clear chains of command and clear goals and work division. As such, the factor called *command and control society* represents a view contrary to factor 1 with the social capital tendencies.

Factor 4: In the fourth factor, only two items loaded higher than 0.40. The items 'combining different opinions' and 'communality' together reflect the willingness to reach compromises and the need to belong to a group. The relationship between this factor and the factor of bonding social capital is interesting. Even if they both seem to represent the view of the community, it seems that factor 4 is 'softer' in its meaning. Whereas the bonding social capital-factor was about making decisions and creating things, this factor does not include action *per se*, rather it seeks to take everyone's opinion into account with the risk of non-action. The factor is called *intra-regional bridging social capital.*

Table 4 The principal components analysis of the local regional development situation

	1	2	3	4	5	Comm.
Sticking to joint decisions	.78					.691
Joint decisions	.76					.632
Supportive atmosphere	.74					.641
Honest activity	.70					.600
Trustful relationships	.67					.525
Co-operation	.65					.540
Creating interaction	.62					.499
Visionary thinking		.71				.590
Customer orientation		.70				.543
Innovativeness		.66				.590
Initiative		.53				.544
Centralized management			.83			.712
Hierarchical methods			.81			.741
Different opinions				.77		.660
Communality				.73		.632
Specialization					.68	.524
Internationalization					.65	.578
External partners					.63	.532
Eigenvalue	5.59	1.57	1.35	1.21	1.07	
Percentage	31.03	8.71	7.47	6.71	5.95	
Cumulative	31.03	39.74	47.21	53.92	59.86	

KMO measure of sampling adequacy .850 (results exceeding .50 acceptable)

Factor 5: The fifth factor captured three items: specialization, internationalization and the selection of external partners. Together they reflect the need for competitiveness, recognizing the core competencies and reaching out from the region. As such, this factor is an interesting one representing the competition and cooperation between regions. The factor can be labelled *inter-regional bridging social capital.*

Finally, the factor structures received were corroborated by confirmatory analysis. The analysis suggested the reported structure to be steady and repeating. Along with the usual methodological tools of securing structural validity, the independent structures which emerged should be considered further. It seems that regional development work has strong underlying drivers reflected in the decision-makers' conceptions of the local situation. In the decision-maker's mind, the central issue is what kind of operation or investments are vested in each alternative direction of regional development. Thus, these five factors, that is, bonding social capital, creative social capital, the command and control society, inter-regional bridging social capital and intra-regional bridging social capital, could be seen as competing with each other in terms of the decision-makers' attention or ideological tendencies.

The last step in the analysis was to further study the eventual socio-institutional inertia underlying the development needs in the region. To do that, we combine the respondents' reactions to the questions on the regional development measures in general and those issues that have been used in the local regional development. As a result we received an insight into the gap between the ideal development pattern and the real state of affairs. To

Table 5 The development gap according to the type of decision-maker and the type of municipality

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Range	–.29–2.00	–.50–2.00	–2.00–2.00	–2.00–2.00	–2.00–2.00
Mean overall	1.08	.96	–.99	.37	.41
Sd.	.53	.57	.74	.75	.60
Developers (n 42)	1.13	1.07	–.99	.40	.60
Politicians (n 72)	1.03	.82	–.95	.44	.29
Business					
Managers (n 19)	1.12	1.22	–1.24	.05	.48
F-value	.472	5.129	1.148	2.032	3.818
Sign.	.625	.007	.321	.135	.025
Lahti (n 70)	1.12	1.07	–1.09	.41	.52
Hollola-Nastola (n 30)	1.17	.92	–1.06	.17	.25
Others (n 35)	.93	.73	–.74	.47	.33
F-value	2.013	4.182	2.880	1.537	2.540
Sign	.138	.017	.060	.291	.083

Two-sided ANOVA

analyse this further we formed sum measures following the factor solution presented earlier. Thus, each sum measure represents the local decision-makers' perception of the need to further develop that particular issue. In Table 5, the comparisons between the different types of decision-makers and municipalities are presented. The decision-makers are categorized into three groups: developers, politicians and business managers. These categories are based on the respondents' background organizations.

The analysis suggests that, as far as the need to create bonding social capital in the region is concerned, there are no differences between the three groups. On the other hand, there is a statistically significant difference in the creative social capital factor. The analysis indicates that both the business managers and the developers value innovativeness, visionary thinking and initiative much higher than do the politicians. This finding may be linked to politicians' attitudes towards risk-taking; the willingness to take risks and be proactive is more common in the business managers' and developers' groups.

In regard to attitudes towards hierarchies and centralized management in regional development, the differences between respondent groups do not reach statistically significant levels. All three groups seem to regard the current situation as too hierarchical and centralized compared to the ideal situation, thus the overall mean is negative. Furthermore, it seems that, somewhat surprisingly, the business managers seem more resistant to this tendency to restrict regional development through hierarchies. In a similar vein, the analysis of willingness to compromise brought out no significant differences between the respondent groups. However, in the last factor, the inter-regional bridging social capital seems to be valued differently among the respondent groups. The analysis indicates that developers are more interested in internationalization, specialization and seeking new partners from outside the region.

Table 5 also includes a comparison between respondents coming from various municipalities in the region. Thus, we separated respondents from the central municipality, the second layer and the peripheral municipalities. Regarding the need to create bonding social capital the analysis suggests that the respondents coming from different areas do not differ from each other. It seems that the value of social capital is fairly

generally accepted and the build-up of social capital in general is pursued notwithstanding the other circumstances. On the other hand, the need to invest in creative social capital, that is, innovativeness, initiation and visionary thinking, seems to be less understood in the peripheral municipalities than in the central municipality. It seems that the respondents from peripheral municipalities seem to resist hierarchical and centralized management in the region less. Even if their attitude is clearly negative towards hierarchies in regional development, the F-value from ANOVA was 2,880, which could be labelled tentatively significant. Finally, whilst the respondents in each group do not differ in their attitudes in regard to the willingness to compromise, they do differ tentatively in terms of their conception of the need to invest in relationships outside the region.

Conclusions

In this study we seek to illustrate the challenge a region faces in its development work. The starting point in this article was the need to know more of the region's ability to react to the techno-economic paradigm shift. With the latter's ground-breaking effects on all sectors of welfare, the regions face a serious need for renewal and innovativeness. However, like any network organization, a region is a setting for many opinions and contrasting ideologies. This confusion can constitute socio-institutional inertia, obstructing the region from taking the steps needed for development.

First, we described the role of dynamic capabilities and social capital as vehicles for mobilizing a stagnant region to development work. The theoretical framework gives reason to suggest that bare resources, even if idiosyncratic or inimitable, do not play such a decisive role in the development of the region as regional dynamic capabilities. In this framework, the relationship between dynamic capabilities and social capital forms the main structure that is needed to ensure that regional development work is successful. It is important to see at this stage, that, by and large, dynamic capabilities derive from the personal preferences and the critical consensus of the local politicians, developers and business managers.

As a case illustration, we analysed the regional actors' level of understanding of the prevailing state of affairs in the region and the development issues the region is facing. In the analysis, five factors influencing the regional development networks can be defined: (1) bonding social capital; (2) creative social capital; (3) command and control society; (4) intra-regional bridging social capital; (5) inter-regional bridging social capital. All the factors except command and control society were seen to be important in regional development (bonding social capital being the most important), whereas the command and control society factor was still strongly prevalent in practice. Some significant differences in the attitudes depending on the group to which the respondents belong were also found. The developers and business managers tend to emphasize the creative social capital and inter-regional bridging social capital factors, whereas the politicians rely more on the bonding social capital factor. Moreover, the respondents in central municipalities emphasize the creative social capital factor, whereas the respondents in the surrounding municipalities are more comfortable with the command and control society factor.

This present study confirms how difficult it is for a region to change its patterns in practice. Even if the survey reveals that regional actors are reasonably well aware of the ongoing change, the respondents considered the old-fashioned hierarchical and bureaucratic ways of action still to be prevailing in the region. However, since regions are not single decision-makers as such, taking decisive steps to change the current practices is not easy.

In regional politics, different interests and ideologies run up against each other, sometimes drastically. According to our analysis of the configuration of interests within the region, it can be said that the development work of a region is hampered by socio-institutional inertia. This inertia arises from the region's path dependency in terms

of its resources and the status quo of social contracts, that is, lock-ins. The regional social capital as a major resource capable of promoting or preventing regional adjustment is decisive in determining the region's innovative capability. It can be stated that the region's development is dependent on its ability to avoid or mitigate the stagnation arising from socio-institutional inertia.

Regions are guided through consensus and compromise. It is easier to proceed with those issues that are shared. Our analysis suggests that the Lahti region is hampered by regional lock-ins that may lead to collective blindness. The various interested parties share common views on the development needs of bonding social capital and command and control. Whilst these capabilities are important *per se*, they are not likely to renew the region; instead the region gets stuck with the existing resource base. On the other hand, two types of capabilities able to add to the regional innovativeness face varying interests within the region. The developers and business managers agreed most on creative social capital and inter-regional bridging social capital, while the local politicians showed less interest in these lines of development.

This study has also broader relevance for urban and regional studies. The role of social capital has been a widely discussed issue in this line of research. However, in the light of this study, it seems that there is a reason to distinguish between the actors' social capital in terms of general interest groups and their like, and those ties and operations, which have significance within regional development and regional policies. In this sense, socio-institutional inertia is not likely to be mitigated by just any type of social capital. This article presents a case study of one region, and further studies are needed to illustrate those policy making tools that could guide the regions and mitigate the socio-institutional inertia within the region.

Even if the development gap seems to be wide in many issues, the socio-institutional agreement is still rather vague. In the current inter-regional competition those regions that could make best use of the local path dependencies and could at the same time show new creative and innovative possibilities are the most likely to succeed. However, further studies are needed to analyse the relationship between the dynamic capabilities and the chosen regional development paths.

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Résumé

Un changement dans le schéma conceptuel techno-économique va affecter les régions, lesquelles présentent toutefois une 'dépendance de chemin'. Cette situation conduit souvent à une très forte inertie socio-institutionnelle dans le processus de transformation par lequel des régions s'efforcent de garder leur place face à la concurrence mondiale. L'article évalue le rôle des capacités dynamiques du capital social au sein du processus d'adaptation régionale. Une enquête menée dans la zone urbaine de Lahti, en Finlande, fournit les données empiriques. D'après ses résultats, les personnes interrogées ont une perception assez bonne du paradigme techno-économique dominant et de la puissante inertie socio-institutionnelle qui s'oppose concrètement au changement. Il en ressort cependant des différences systématiques dans la réactivité entre les hommes politiques et les autres décideurs. En conclusion, l'étude analyse la pertinence des opinions communes partagées concernant le développement nécessaire dans la région.