The Development of Innovative Local Organisations and Regions

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This chapter discusses the specific problems of constructing local advantage in regional innovation settings in Australia. Focusing on 'non-traditional' intermediary organisations and their role in promoting collective learning, it reviews a novel approach to accelerating the performance of a local council in New South Wales, Australia and its associated regional development organisation.

Introduction

Conceptual models of regional innovation systems have prompted major government initiatives in Europe and North America to assess and to promote local innovation and learning capabilities. In contrast, regional innovation initiatives in Australia lack the support from central government and transnational programs that is available to regions in Europe.

Two crucial challenges face local governments: (1) the provision of quality community services, and, (2) fostering sustainable regional socioeconomic development through innovation. One is an immediate tactical concern, the other a diffuse strategic issue. They are two sides of the same coin: innovation in and by the city (Marceau 2008). Yet, we know little about the process of collective learning in the development of local services and innovative regions. Lacking are (1) a conceptual understanding of local innovation and knowledge networks; (2) data on local innovation actors and activities; and, (3) clarity on the most effective ways for municipal and regional government to 'construct advantage' in a federal system.

The broad question that concerns us is how local governments and communities can effectively promote knowledge and innovation-based economic and social development.

Current understanding of regional development

Paradoxically, the significance of 'place' is enhanced in a global knowledge economy, through a process of 'glocalisation'. This weakens the power of national level governments and organisations, but opens up new opportunities for cities and regions to display their talents on the world stage (Ohmae 1995). Glocalisation comprises two elements. Firstly, economic activities become both more localised and transnational. Even the smallest firms can enter international supply chains and markets. Second, institutional arrangements and regulation at the national level devolve upwards to supranational bodies (European Union (EU), World Trade Organisation (WTO)) and downwards to regional, metropolitan or local government and agencies (Swyngedouw 2004). In many countries, this drives political devolution to new regional tiers of government.

Regional development is not determined solely by global economic institutions, by national government, nor by local players, but by the interplay of each of these actors. This 'new regionalism' (Keating et al. 2003) provides opportunities for a broad range of local organisations to influence the economic and social development of a region – i.e., to 'construct advantage'. These opportunities are open to a range of local 'actors', from firms and business groups, educational institutions – especially universities and research agencies – various levels of government, and a panoply of non-government and intermediary organisations within society.

If local institutions are the fabric of innovative regions, then the 'glue' is social capital. Social capital is a loosely defined concept: it may refer to institutions or cultural norms, or, both. Cooke's (2002) definition is as good as any: 'trustful, reciprocal networking through professional, civic and cultural associations' as 'a means of securing full civic engagement and sharing of common problems and issues'. At its simplest, social capital equates to 'networks' and 'trust'. 'Constructed advantage' is a process of expanding social capital – skills, organisations, networks and collaborative relationships (de La Mothe & Mallory 2006). The role of government in constructing advantage then becomes that of 'backing local leaders' (de La Mothe & Mallory 2006). Thus, 'constructed advantage' achieves value through 'profoundly collaborative, socially interactive processes' that entail communication and learning (Cooke & Morgan 1998, p. 8).

As Keating et al. (2003) concluded, 'we still know too little about just how and why particular regions develop the social preconditions for successful development' (p. 19). Innovation in the city and innovation for the city present a common challenge. Both require harnessing social capital within and between organisations to create collaborative and productive 'learning organizations' (Senge 2006), 'learning communities' (Benner 2003; Courvisanos 2003), local 'learning economies' (Lundvall 1994) and ultimately 'learning regions' (Florida 1995, 2000; Boekema 2000; Rutten & Boekema 2007; Morgan 1997), which have also been conceptualised as 'externalised learning institutions' (Cooke 1998).

Regional innovation literature has largely ignored the conceptualisation and measurement of the learning process (Cooke 2002; Rutten & Boekema 2007), or rather, learning has become a 'black box', included but not understood. Our approach is to explore the concept of the 'learning region' as an extension of the concept of a 'learning organisation', which Senge (2006) described as, 'continually expanding its capacity to define its own future'.

Policy responses

Internationally, we see a bold policy response to the new regionalism from business and government, which has produced new organisations and initiatives:

- In the USA, 'Silicon Valley' in northern California has been viewed as a leading model of 'cooptition' (innovation involving cooperation and competition between firms and other organisations) (Saxenian 1994; Saxenian & Dabby 2004) and the 'breakthrough' region in terms of regional innovation (Cooke 2002). Joint Venture Silicon Valley (JVSV) was established in 1993 by regional business, education and government leaders who used their own resources (Wegener 2001; Cooke 2002) in an effort to improve Silicon Valley's networking, interaction and regional viability.
- The European Commission set up the Innovating Regions in Europe (IRE) Network in the mid-1990s to exchange experience and best practice in the European regions. IRE aims to increase capacity to support innovation and competitiveness among firms in the regions by identifying appropriate strategies and schemes (Innovating Regions in Europe 2007a, b). The core activities of IRE are the Regional Innovation Strategy (RIS) Projects that offer a generic methodology involving regional dialogue; involvement of all relevant organisations; analysis of regional innovation needs and capacities; selection of priorities for innovation support; and, action plans and pilot projects.

Regional innovation in Australia

In contrast, the growth of coordinated regional innovation initiatives in Australia has been late and ineffective, for two main reasons: the structure of industry and the structure of government:

There are few horizontal clusters of the 'Third Italy' kind (Marceau 1999), due to a lack of critical mass or scale, geographical dispersion, path dependence and concentration of firms in key export industries. Globalisation has occurred in some industries through 'natural' clusters – e.g. in the wine production and tourism industries, where there are excellent regional linkages between firms, training institutions and research agencies. In the Illawarra region, the heritage of heavy industry and infrastructure shapes current structures for collaboration. A survey of small firms here found that innovation predominantly involves vertical collaboration with suppliers and customers along the value chain. There seems to be barriers to horizontal collaboration with universities and other knowledge institutions (Turpin & Garrett-Jones 2002).

A significant factor is the character of government in Australia: the role of three different levels of institution and governance – the federal (central), state (provincial) and local – and the extent to which they are prepared to intervene as facilitators. Unlike the Spanish and the UK central governments, which have been 'inventing' ways to devolve power to the regions, Australia is shackled by a 19th century federal constitution (1901), which is virtually impossible to amend. The constitution severely limits the power of state governments to raise revenue and thus to invest in R & D and innovation. Further, the states have ceded significant responsibilities to the federal government even where they hold the legislative power, e.g. funding of universities. Far from becoming devolved, power is becoming centralised to a federal government that over the years has had an ambiguous approach to regional development. Likewise, the state governments are loath to favour particular regions in their policies. The third tier of local government is weak and diffuse. Each large city has multiple councils, while some rural councils cover huge regions. Local government is working within a system of governance that has been described as 'fragmented and incoherent' (Parker & Tamaschke 2005, p. 1803) in relation to its influence over business and in relation to effective coordination of different levels of government.

While not unique to Australia, regional governance in most countries lacks the 'panoply of coercive powers' of nation-states with power relying far more on 'steering and concertation' (Keating et al. 2003, p. 38). In contrast with regional devolution elsewhere, local governments and other local organizations in Australia concerned with economic and social development are faltering. We see a lack of power at the local level, and a lack of coordination between players, and as a consequence, a political paralysis in seizing the opportunities of the new regionalism.

Wollongong and the Illawarra region

Located in the Illawarra Region approximately 80 kilometres south of Sydney, Wollongong is the third largest local government area in the state of New South Wales (NSW) by population (est. 192,000 in 2006) (Australian Bureau of Statistics, 2007). The neighbouring Shellharbour and Kiama municipalities bring the total regional population to around 275,000.

For most of the 20th century the city had a dominant industrial base with a large steelworks at Port Kembla. Industrial decline and a negative image of the city prompted the Wollongong City Council to fund a A$2.5 million 'city image campaign', declaring itself as a 'City of Innovation' in 1999. The city set its sights on attracting knowledge-based services as well as building on its traditional strength of steel manufacturing and engineering. The City Council also saw itself as offering a regional service economy wanting to sell itself as 'a regional city with the advantages of a capital' (Wollongong City Council 2008), and to build on the initiatives of other regional players, like the University of Wollongong's Innovation Campus (Buchan Consultants 2006). The Council itself committed to continually improving the quality of its services, being innovative, creative and working with the community (Wollongong City Council 2009). To improve collaboration at the policy level the city established 'Advantage Wollongong', a forum with members drawn from a range of business, industry, government and educational groups in the region.

Approach

In this chapter, I concentrate on the problem of identifying actor organisations and knowledge gaps. We have proposed a 'meso' approach (neither case studies nor regional capability survey) for assessing constructed advantage in local innovation systems, based upon a broad review of the literature on learning regions and our observations about the variety of 'community innovation organisations' (Garrett-Jones et al. 2007). The framework comprises a series of 'actors' and of 'assets' (Figure 1) and builds on the Regional Innovation Strategy (RIS) literature (Cooke 2002; Cooke & Morgan 1998; de La Mothe & Mallory 2006; Gertler & Wolfe 2004; Langford et. Al. 2002; Morgan 1997; Wegener 2001).

Actors

The 'standard' players in innovation systems are well known: firms, universities and research agencies, government programs, capital markets, etc. (as shown by the IRE model). In our view, this does not capture the complexity and variability of local innovation players, particularly in relation to 'intermediary' organisations and the many roles of different layers of government. Some of the players in these networks and intermediaries are obvious – major industries, chambers of commerce, business groups, universities and government agencies at all levels. Others are less noticeable – charities, sporting clubs, business services, schools and colleges and individuals – but nevertheless may be significant in particular contexts. Our categories of local 'actors' complement and augment the 'standard' NIS framework:

We define a class of 'community innovation organisations' (Garrett-Jones et al. 2007) using the following criteria:

1. Focus on a defined geographical region;
2. Broad membership, not only of businesses and/or policymakers, but a community of regional decision makers; businesses and business organisations; university and education leaders; healthcare leaders; 'civic officials'; non-profit organisations; government research institutions, local industries, university instructors, higher education leaders, and youth groups (de La Mothe & Mallory 2006). At their core, they represent a partnership between a city/region, university and chamber of commerce;
3. Not generally initiated or formed by (federal/State) government; (4) they rely on their members' funds and are not dominated by government funding; and, (5) they take on a very wide range of functions from advocacy to planning and funding local initiatives and activities.

The other element that is missing from the 'standard' NIS model is the complex interplay between different levels of government. This is a serious issue in Australia's federal system (as the government memberships of 'Advantage Wollongong' demonstrate).

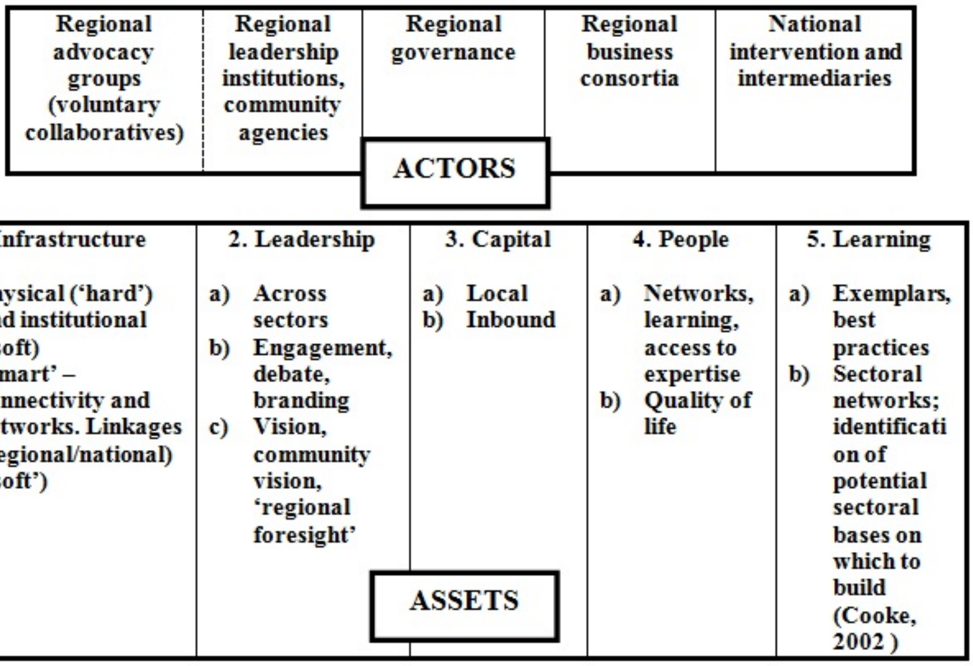

Figure 1. Institutional actors and assets in local innovation (Source: Garrett-Jones et al. 2007, after Cooke 2002; de La Mothe & Mallory 2006; Gertler & Wolfe 2004, Langford et al. 2002; Wegener 2001)

Assets

Assets are the factors which appear important in a wide range of situations in constructing local advantage (Garrett-Jones et al. 2007). Local assets can be characterised under five broad headings: infrastructure (physical and 'smart', such as networks), leadership, capital, people and learning systems. This framework can be used to carry out a 'gap analysis' in particular regions, recognising, of course, that not all assets will carry the same importance in each region.

A further extension to the framework is to add context specific 'activities', which we term *service* chains. These may include services such as the provision of risk capital, vocational training, or, less tangible activities, such as provision of regional strategy or leadership. This reflects the idea that 'soft services are considered the key to the modern performing, learning region' (Keating et al. 2003, p. 18). Key elements included in 'soft services' are investment in human capital (education, training, skills upgrading), R&D, inward investment, and endogenous development and entrepreneurship (Keating et al. 2003). These factors are already included in our list of 'assets'.

The core set of assets required is likely to be common across regions, but the actors may and will be quite different. Actors work within the institutions (forms of accepted organisation or way of behaviour) available to them, which are partly a function of history. Assets are not necessarily associated with the same group of actors in various regions. What is relevant is not whether a bank provides venture capital, for example, but whether risk capital is available from any source in the system (regional government or large firms). Likewise, regional leadership may come from a dominant firm or industry sector in the region, from knowledge organisations like universities and government labs, or from the political or governmental sector. Equivalent leadership roles may be adopted by quite different organisations in different regions, depending on the economic, cultural and institutional history of the region. Therefore, it is important to identify which actors are carrying out, or, could potentially perform particular activities or services given the local assets.

Discussion – Contribution and practical implications

In our view, the concept of innovative regions is an extension of the 'national innovation systems' (NIS) model with commercial enterprises securely in the driving seat. Many other actors – universities, financiers and the legal system – essentially 'support' the enterprise in its competitive quest. Whilst this cradle or incubator model is fine as long as the enterprise thrives, it is less well equipped to deal with crisis or decline where the 'next' industries are yet to be identified or emerge. What is required then is more of a 'fertile field' model, where enterprise can emerge from a variety of sources.

In some places, 'the public authority side may be 'miles ahead while in other innovation is pushed by companies powering ahead' (Marceau 2008, p. 138; Todtling & Kaufmann 1999; Todtling & Trippl 2005). Todtling and Kaufmann (1999) classify regions as, 'firm-based innovation systems' where inter-firm relations were the most important. Regions where universities and research organisations are more important are termed, 'science based innovation systems'. A third category of 'policy-based systems' is assigned for regions where there is a stronger role taken by technology centres, regional agencies and other policy actors. A more comprehensive model of learning regions is presented by Ruttan and Boekema (2007), which comprises 'regional context', 'processes' and 'outcomes', but again it is 'one dimensional' in that it does not specifically map actors and activities.

This study attempts to unite the organisational learning and innovation policy approaches to understanding the complexity of regional renewal initiatives. We propose a framework of regional innovation 'assets' and 'actors' as a tool for identifying critical strengths and gaps in 'activities' and 'service chains'. These gaps can then be taken as opportunities for action and learning within and between organisations. This framework extends the theoretical framework for analysing learning regions. By comparing the common assets and not being diverted by the exact structure of the actors we offer a model that is flexible and allows the comparison of different regions' strengths in constructing advantage for their locality. This extends existing models. To the extent that our model can be used as a diagnostic tool to identify opportunities for collaborative learning, it can provide guidance and exemplars for local government and community organisations in Australia and beyond that wish to accelerate innovative local services and socioeconomic development, but lack the resources of their counterparts elsewhere.

References

Australian Bureau of Statistics 2007, *3218.0 - Regional Population Growth, Australia, 2005-06*, Australian Bureau of Statistics, Canberra.

Benner, C 2003, 'Learning communities in a learning region: the soft infrastructure of cross-firm learning networks in Silicon Valley', *Environment and Planning A*, vol. 35, pp. 1809-1830.

Buchan Consultants 2006, *Wollongong Local Government Area Economic Development Strategy: Volume 1 - Strategy Report*, Wollongong City Council, Wollongong.

Cooke, P 2002, 'Knowledge economies, globalisation and generative growth: implications for policy', *National Economic Review*, vol. 50, pp. 21-38.

Cooke, P & Morgan, K 1998, *The associational economy: firms, regions, and innovation*,Oxford University Press, Oxford.

Courvisanos, J 2003, 'Innovation for regional communities: A research framework', in *Small Enterprise Association of Australia and New Zealand 16th Annual Conference*, Ballarat.

de La Mothe, J & Mallory, G 2006, 'Constructing Advantage: Distributed Innovation and the Management of Local Economic Growth', *Prometheus*, vol. 24, no. 1,pp. 23-36.

Florida, R 1995, 'Towards the Learning Region' Futures, vol. 27, pp. 527-536.

Florida, R 2000, 'The Learning Region', in *Regional innovation, knowledge, and global change*, ZJ Acs (ed.), Pinter, London, pp. 231-239.

Garrett-Jones, S, Gross, M, Kerr, G, Kotevski, S & Zaeemdar, S 2007, 'Cities of innovation: Exploring the role of local community organisations in "constructing advantage", presented at the *21st ANZAM Conference 2007: Managing our intellectual and social capital*, Sydney, <http://ro.uow.edu.au/commpapers/458/>.

Gertler, MS & Wolfe, DA 2004, 'Local social knowledge management: "Community actors, institutions and multilevel governance in regional foresight exercises"', *Futures*, vol. 36, pp. 45-65.

Innovating Regions in Europe 2007a, *About the Network*, Innovating Regions in Europe (IRE) network.

Innovating Regions in Europe.2007b. *IRE Regions*. Innovating Regions in Europe.

Keating, M, Loughlin, J & Deschouwer, K 2003, *The new regionalism, Culture, institutions, and economic development: a study of eight European regions*, Edward Elgar, Northampton, pp. 6-40.
Langford, CH, Tyrie, A & Peace, J 2002, 'Networking support to innovative young firms: Pathways of knowledge', in JJ Chrisman, JA Holbrook & JH Chua (eds), *Innovation and Entrepreneurship in Western Canada: From Family Businesses to Multinationals*, University of Calgary Press, Calgary, pp. 185-204.

Lundvall, BA & Johnson, B 1994, 'The learning economy', *Journal of Industry Studies*, vol. 1, no. 23-41.

Marceau, J 1999, 'The disappearing trick: Clusters in the Australian economy', *Boosting Innovation: The Cluster Approach*, OECD, Paris, pp. 155-173.

Marceau, J 2008, Innovation in the city and innovative cities, *Innovation: Management, Policy & Practice*, vol. 10, pp. 136-145.

Morgan, K 1997, 'The learning region: institutions, innovation and regional renewal', *Regional Studies*, vol. 31, no. 5, pp. 491(413).

Ohmae, K 1995, *The end of the nation state: the rise of regional economies*, Free Press, New York.

Parker, R & Tamaschke, L 2005, 'Explaining Regional Departures from National Patterns of Industry Specialization: Regional Institutions, Policies and State Coordination', *Organization Studies*, vol. 26, no. 12, pp. 1787-1807.

Rutten, R & Boekema, F 2007, *The learning region: foundations, state of the art, future*, Edward Elgar, Cheltenham.

Saxenian, A 1994, *Regional advantage : culture and competition in Silicon Valley and Route, 128* Harvard University Press, Cambridge.

Saxenian, AL & Dabby, NC 2004, *Creating and Sustaining Regional Collaboration in Silicon Valley? The Case of Joint Venture: Silicon Valley*, Institute of Urban and Regional Development Working Paper, University of California at Berkeley, 2004-05.

Senge, PM 2006, *The fifth discipline: the art and practice of the learning organization*, (Rev. and updated ed.). Random House, London.

Swyngedouw, E 2004, 'Globalisation or "Glocalisation"? Networks, Territories and Rescaling, *Cambridge Review of International Affairs*, vol. 17, no. .

Todtling, F & Kaufmann, A 1999, 'Innovation systems in regions of Europe--a comparative perspective', *European Planning Studies*, vol. 7, no. 6, pp. 699-717.

Todtling, F & Trippl, M 2005, 'One size fits all?: Towards a differentiated regional innovation policy approach', *Research Policy*, vol. 34, no. 8,pp. 1203-1219.

Turpin, T & Garrett-Jones, S 2002, 'Conclusions: intersecting systems of innovation', in T Turpin, X Lui, S Garrett-Jones & P Burns (eds), *Innovation, Technology Policy and Regional Development: Evidence from China and Australia*, Edward Elgar, Cheltenham, pp. 199-213.

Wegener, T 2001, *Toward a Typology of Regional Leadership Institutions: Examples from the San Francisco Bay Area*, Urban and Regional Development Working Paper, University of California at Berkeley, pp. 2001-10.

Wollongong City Council 2008, *Advantage Wollongong: A regional city with the advantage of a capital*, Wollongong City Council, Wollongong.

Wollongong City Council 2009, *Strategic Directions 2009-12 (Draft)*, Wollongong City Council, Wollongong.