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Strategy Development in Knowledge Cities Revisited¹

The Roles of Innovation Strategy in Helsinki Metropolitan Area Explored

Introduction

This chapter provides answers to such questions as 'What kind of approach to strategy development might serve both collaboration and knowledge city development well?' and therefore also the question of 'How could development efforts be directed by strategy development?' The point of departure here is that the globalizing economy and the rapid technological progress, among other things, have challenged us to find not only new policies and innovations, but also new ways to organize policy making and to lead innovation processes. The challenge of mobilizing actors and resources from different walks of life and the need to pool their knowledge and competences in the search for a knowledge city is formidable. In the 1990s strategic planning became one of the new tools for these efforts in Finland.

The deep economic recession of the early 1990s, membership of the European Union, advancing globalization and a stronger emphasis on knowledge and innovation, among other things, changed the context of Finnish policy making almost overnight. Suddenly there was a new demand for fresh strategies in the context of city development too. Indeed, Finland became inundated with strategic development programmes focusing on, one way or another, learning, innovation and knowledge. Strategic planning, however, has not turned out to be such a producer of success as the handbooks and consultants indicated at that time. At times it has been difficult to shape that very own, unique competitive advantage, strategies have been more self-evident than thought provoking, existing and incipient patterns have been recognized to be legitimized with the help of strategic planning and sometimes all the unfinished business is compiled into strategy papers and future-oriented strategies have been

¹ This chapter is based on two working papers (Sotarauta, 2004; Saarivirta & Sotarauta, 2009).

implemented in a year. Simplistically put, in many strategies it has been decided 'to support all that is nice and beautiful and to avoid all that is nasty' and therefore with goodwill almost all activity can be interpreted in retrospect as a supporting strategy.

The brief account of the fallacies of strategic planning given above is pessimistic, even cynical, but above all it is one-sided and narrow, and partly wrong. Strategic planning has not produced only failure. Most importantly, the question behind these views is wrongly posed. This chapter is based on an assumption that we should not approach strategy development as a planning procedure. Instead, we should ask what the place of strategy is in city development efforts, and what kind of roles does it play in the multi-agent, multi-value and multi-vision world of city development? What role does it play in the creation of collaborative advantage? In this chapter, the aim is not to outline a comprehensive picture of strategy development in knowledge city development, which is beyond the scope of this effort. Instead, the chapter first outlines very briefly the policy playground, i.e. the basic features of the current policy wisdom and thinking behind knowledge city development; second, it discusses the basic tenets of classical strategy and its shortcomings; third, strategy development is discussed from processual and communicative point of views; and last, the many roles of strategy development are summarized. These issues are discussed below using both theoretical insights and an Internet survey carried out among the participants of the Helsinki Metropolitan Area (HMA) innovation strategy process as well as those key actors who did not participate. The survey² was to solicit information about the perceived uses and benefits of the strategic plan and the strategy process (see for more detail Saarivirta & Sotarauta, 2009).

Throughout the chapter the HMA is used as a case to illustrate the roles of strategic planning in the effort to make the HMA a world leading knowledge city. Helsinki Metropolitan Area is a relatively complex and versatile metropolitan region that has a fragmented innovation system. Being the only metropolitan area in Finland with its 1,370,000 population (2009) and having a very strong institutional and organizational basis for a knowledge-based economy, the Helsinki Metropolitan Area dominates the Finnish innovation scene in many ways. The number of employees working in R&D is the highest in Finland and the educational level of the employees is similarly among the highest in the country. Knowledge generation and application and the higher education sector are very important to the economic development of the HMA. There are nine universities, six polytechnics, several research centres as well as dominant Finnish firms.

² There are 111 respondents altogether, of which 86 are men and 25 women. The majority (69%) belong to the top management of their organizations and 17.4% to the middle management. The rest of the respondents are either engaged with operative and/or project work (3.7%). Most of the respondents work for various private organizations (44.5%) and local government (33.6%). The rest come from various state agencies (10.9%), universities (6.4%) and polytechnics (4.5%). Most of the respondents had participated in strategy making (65.8%).

The context – contemporary policy wisdom and Helsinki’s experience

During the last decade or two the focus of development efforts in city regions has, broadly speaking, focused on the improvement of competitiveness. Competitiveness aligns itself with such concepts as, for example, innovation systems, clusters and creativity, all praised for their fresh approach as well as criticized for their fuzziness in the academic spheres but enthusiastically embraced by policy communities in many parts of the globe. To cut a long story short, in many city regions strategies aimed at fostering competitiveness have puzzled over the question of how to adapt to a changing environment, not like driftwood in a stream but with purpose. Therefore, the idea of competitiveness has implied, or at least should imply, the identification of fundamental determinants of place prosperity, i.e. the basis for sustainable growth in modern economies (Turok, 2004). The aim of contemporary development policies is often to cultivate some specific differentiated and locally rooted but extra-regionally connected knowledge pools and to foster links between academia, industry and the public sector, i.e. to construct knowledge-based local advantage (Asheim et al, 2006). A knowledge city may be seen as a place where the local milieu enables the intensive, continuous, diverse and complex creation and exploitation of new knowledge (see for more e.g. Carrillo, 2006; Cooke, 2002).

In its efforts to boost competitiveness a city region needs to be able to pool the resources, competencies and networks of a multiplicity of actors and hence, in the end, the question may be more about collaborative advantage than straightforwardly about the construction of knowledge-based regional advantage. Of course, these two are in many ways interlinked. All in all, fairly often it is very difficult to exploit the existing resources and competencies and/or to create new ones without functioning collaboration between key actors.

In Finland knowledge-based development is widely believed in. At all levels of policy universities and other institutions of higher education are believed to be the drivers of national as well as local development, Centre of Expertise Programmes have become very popular as development tools and new technology and science-oriented development programmes have been designed and a new national innovation strategy formulated. In addition to a strong belief in technology and innovation, Finnish policy makers have strongly adopted the idea of fostering collaboration. Indeed, in the 1990s ‘network’ became the magic word for development activities, a symbol of fruitful cooperation and one of the leading principles of development activities.

Strangely enough, the Helsinki Metropolitan Area remained for a long time fairly passive in various local efforts to boost competitiveness and increase innovation capacity, while many of the other Finnish city regions, more or less consciously, had aimed to achieve exactly the same since the early 1980s. In a way, the key actors of the HMA awakened only in the later part of the 1990s to realize that even in Helsinki, which has a dominant position in Finland, there is a need for comprehensive and

collaborative local economic development policies. It is a demanding realization. One might argue that prior to awakening the key policy actors of the HMA mixed the existence of nationally important knowledge creating and exploiting organizations with a strong local innovation policy. Many of the key organizations were managing fine on their own (e.g. Nokia, universities, polytechnics, etc.) but to do well in the fierce global competition, as it was argued and believed, the HMA needed an innovation strategy. The idea was initiated in a so-called Helsinki Club II that was summoned by the Mayor of the City of Helsinki. All the relevant stakeholders participated in the strategy making (altogether 115 participants, see Innovation Strategy, 2006).

The very basics of strategy and strategic awareness

In spite of the huge amount of literature on strategy, there is no single, universally accepted definition of the word. Different authors, planners and managers use it differently. Neither is there a single standard approach to strategic thinking, planning or management (Mintzberg, 2000), even if classical strategic planning dominates many spheres of policy making.

Henry Mintzberg provides a very basic and widely used distinction between intended strategies and realized strategies. According to Mintzberg (2000, pp. 24-25), it is also possible to distinguish deliberate strategies, where intentions that existed previously are realized, from emergent strategies, where patterns are developed in the absence of intentions, or despite them. Thus, strategies may go unrealized, while patterns may appear without precondition. Based on these notions, it is possible to propose that in the Helsinki Metropolitan Area there have been strong emergent local development strategies but collective intended strategies, not to mention deliberate strategies that were poorly developed before the recent efforts. Of course, for a local innovation strategy to become truly deliberate would seem to be unlikely. Precise collective intentions would have had to be stated in advance by some kind of centre of wider networks and then these would have had to be accepted by everyone else, and then realized with no interference from market, technological or political forces. Naturally, as Mintzberg (1992, pp. 12-14) maintains, a truly emergent strategy is also unlikely. It would require consistency in action without any hint of intention. In local innovation strategy the question is about the interplay between intention and emergence.

Strategic thinking is here defined as an ability to think on an abstract level, to move freely from imaginary issues to real ones and vice versa; it is an ability to combine intuition with analytical thinking. It should be seen as an ability to see through things: to perceive them as they really are. A true strategist has the ability to anticipate events, plan for them and attempt to control them by linking operative actions to the long-range view through strategic awareness. The true nature of strategic thinking is not that of a set of procedures to be carried out to obtain the desired results: it is more open in its scope. Strategic thinking is an individual attitude and ability, a way of seeing

reality and its subjective, constantly changing and complex nature. A strategically thinking individual is on the one hand creating his/her cognitive map, and on the other hand transforming this into consistent and persistent action. In essence it is about making sense of a complex flow of events. These insights suggest that strategy development ought to play a role in the construction of both individual and collective strategic awareness.

Awareness presupposes that an actor knows and recognizes his/her own roles in the respective context. For the development of awareness it is necessary for an actor to have the ability to monitor and interpret events and to make sense of them. Additionally, awareness expands to being strategic when an actor has the ability to find the strategic issues essential to development from the long-term perspective. The assumption then is that as strategic awareness grows so also does the probability that policy makers and other stakeholders will act in keeping with the intended strategies and therefore that strategic plans may turn out to be pragmatic action intended strategies, not so much on paper but in the collective awareness of the key actors. The gap between the intentions and the realization of strategies may become narrower due to increased awareness. The proposition here is that the collective strategic planning provides both individuals and collectives with an organized forum to create and maintain strategic awareness.

In the case of the HMA innovation strategy, 64.5% of the respondents perceive that participating in the strategy making increased either very significantly or significantly their awareness of the importance of local innovation systems, their main features and the participants' own roles in the development of the HMA innovation system. In addition, 71.9% perceive that the strategy process enhanced their understanding of the position of the Helsinki Metropolitan Area in the global competition between cities. Additionally, 50.5% of them claim to understand better now than earlier the links between global developments, a knowledge-based economy and the local efforts to boost innovativeness. Based on the Helsinki experience it is possible to conclude that the making of an innovation strategy significantly increases the strategic awareness of those who participate. Therefore, it is also possible to conclude that strategic planning is a collective and organized mode of strategic thinking and a way to construct collaborative advantage. Strategic planning is a collective way of making sense of a complex flow of events.

The basic tenets of the classical approach and strategic intentions of the HMA

Whittington maintains that the classical approach is rooted in the idea of rational planning and its methods. For classicists, strategy is an essential part of shaping the future. The classical approach considers the possibility of having a monolithic goal of some kind as a natural outcome of strategic planning. Classical theorists see strategy essentially as intentional and deliberate (Whittington 2001, pp. 11-15.) The approach used in the Finnish local and regional development policies is quite often based on the

classical approach. When strategic planning started to attract Finnish policy makers, the methods of the classical approach provided them with an appealing ordered and clean view of strategy making. It was dissimilar enough but still similar enough to previous rational models to attract their attention.

The five basic premises of the classical school identified by Mintzberg (2000, pp. 37-40) are used here to simplify the discussion on classical strategy. First, according to the classical school, strategy formation is a controlled conscious process and therefore the action does not receive as much attention from the classicists as the reason; according to them, action follows once the strategies have been formulated. The belief is that strategies come out of the design process fully developed, and they should be made explicit and articulated. Second, when the unique and explicit strategies are formulated, they must be implemented (Mintzberg 2000, pp. 37-40.) Local and regional development discourse and practice is more often than not in line with these assumptions. In the rhetorics of city development, strategy usually refers to a consciously developed outcome that is presented in written form in a 'city development plan/programme' or in a 'local development strategy' and implementation is seen as a distinct phase in the strategy process.

The third assumption, according to Mintzberg (2000, p. 37), is that the responsibility for the process must rest with the chief executive officer or a coalition of some kind: that actor is the strategist. This premise reflects both the individualism and the military notion of the solitary general at the top of the hierarchy. Strategies in this sense are strategic orders for the organization to carry out. In the collaborative settings of local and regional development this assumption is not viable. In fairly complex governance settings and many policy networks working on city development it is not usually possible to identify 'The Leader', and usually in Finland it is not possible to identify 'The Organisation' either, which might alone have a leading role. It is rather aimed to create some kind of collective, coalition and/or policy network to take responsibility for city development and therefore if in a corporate world strategy can be seen as general-level 'orders' to the organization, in local and regional development strategy it can be seen as one of the tools used to pursue the development of some kind of collective inter-organizational development effort. The fourth assumption states that the model of strategy formation must be kept simple and informal and the fifth one argues that strategies should be unique: the best ones result from a process of creative design and are built on core competencies (Mintzberg, 2000: pp. 37-39).

There are no data available to assess how well the HMA innovation strategy has been realized but what is obvious is that the strategy and the vision presented in it are hardly unique constellations; many of the strategies in different city regions across Europe resemble it and each other.

The vision for Helsinki Region: The Helsinki Metropolitan Area is a dynamic world-class centre for business and innovation. Its high-quality services, arts and science, creativity and adaptability promote the prosperity of its citizens and bring benefits to all of Finland.

The Metropolitan Area is being developed as a unified region close to nature where it is good to live, learn, work and do business. (Innovation Strategy 2006, p. 5)

The HMA innovation strategy aims to be a classical strategic plan outlining the HMA position, the required development trajectories and the main actions. It contains bold ambitions as well as concrete measures. To give a flavour of the collective endeavour the four pillars identified in the strategy document provide us with a generic overview. The strategic pillars are: I) improving the international appeal of research and expertise; II) reinforcing knowledge-based clusters and creating common development platforms; III) reform and innovations in public services; IV) support for innovative activities (Innovation Strategy, 2006). The four pillars are supported by twenty-six fairly concrete action proposals.

In the Internet survey it was asked whether the HMA innovation strategy creates a 'shared will and vision' among the key stakeholders. If strategy making had clearly affected the emergence of collective strategic awareness, it has not led to shared will yet. Only every fifth respondent (20.7%) sees that a shared will has emerged due to strategy work while 41.9% do not notice such a development at all. At the same time, a majority (63.9%) perceive that there is now a better-established shared vision among the key players. Additionally, 74.9% of the respondents believe that the most important targets of development efforts have now been identified, 69.8% of them see that concrete measures to be taken were identified and 62.3% see that the strategy development launched new collective development processes. Interestingly, the survey results suggests that strategy making has increased strategic awareness, enabled the emergence of a shared vision and answered the question of what needs to be done next; all this has not led to a shared will or a wider commitment to strategic intentions.

The black hole of classical strategy and a step towards a processual and communicative approach

As stated already, the use of classical strategic planning in local development policy making has not been free of problems. At this stage, it is not possible to assess whether there is a danger of the HMA innovation strategy process fading away and disappearing into the black hole of classical strategy. More often than not policy makers have too strong a faith in (classical) strategic planning, which does not fit as such into the multi-everything world of local and regional development. Therefore, there is always a danger of falling into the classical strategic planning trap (Sotarauta, 1997) that is based on too well-established a belief that a) planning and implementation can be separated; b) the quality of strategic analyses guarantees the quality of the intended strategy; c) the quality of the intended strategy's contents guarantees its implementation; d) it is possible to have various organizations already fully committed to the local strategies in the planning phase; and d) it is possible to distinguish on the one hand the strategic level that is responsible for the formulation

of local strategies, and on the other hand the operative level, which is responsible for implementation. The question is not about a trap de facto, but rather about not entrusting the planning for the future to classical strategic planning methods only, because if they are overemphasized the quality of the everyday process is easily neglected, i.e. the preconditions for learning, communication, collaboration, etc.

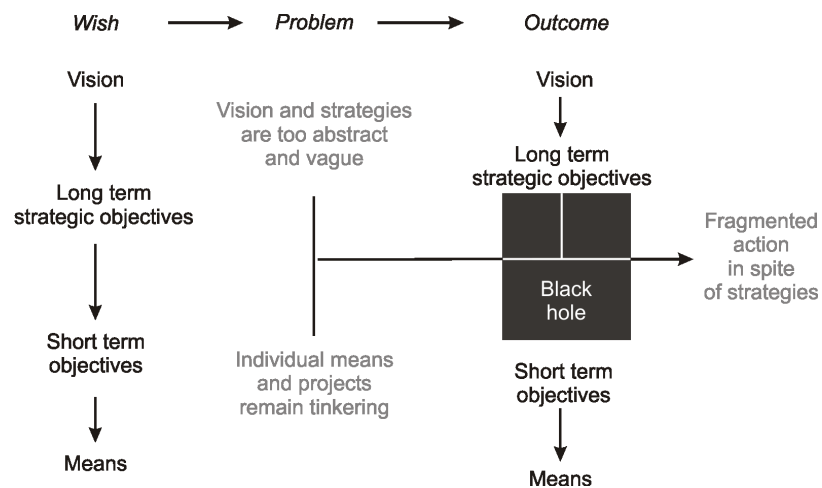


Figure 1. Simplified illustration of the black hole of classical strategy development

The black hole is caused by the fact that there are many objectives and endeavours in the local economic development policy world, not to mention the entire urban ensemble. Even the question 'What is development?' may prove hard to answer. Moreover, such questions as 'What are we aiming at?', 'How are we acting together?' and 'How are resources to be channelled?' may be very difficult to answer as each of the various organizations contemplates development from its own perspective. Even though city governments play an important role in city development, they are in no position to direct or control the strategies of enterprises, organizations, families, etc. The management of the urban regions cannot be described as 'top-down' or 'direct and control' models, nor is strategic management able to define and implement easily 'objectives to serve the common good' (Healey et al, 1995.) Often strategy preferences emerge from dynamic processes and are thus also dependent on the logic of the situation and political judgement regarding what is feasible and what is not. There is a clear tendency in local strategies to seek a shared vision based on shared objectives and on which the different actors are believed to take their stand.

But is it possible to guide the activities of several organizations through collective strategies? In order to gain control over development or change in a given city region it would be necessary for all the actors to be of one mind with regard to issues and strategies and their solutions. Furthermore, they would need to implement local

strategies by their own actions. Efforts have been made to unify the actions of different actors with the help of local strategies, i.e. it is hoped that local strategies will guide a maximum number of local actors either directly or indirectly. The basic idea of collective local strategies is very tempting. It would make things more manageable. In the best case the creation of local strategies can provide a good forum for making the goals and measures of different organizations more parallel, but in the worst case there is the danger that strategies will not progress beyond being papers among a host of other papers. The assumption that collaboration could be achieved within city strategies is hard to implement, but if we accept that organizations and individuals are selfish and always approach local development from their own point of view, we could make an assumption that true collaboration is achievable between strategies.

When collaboration is achieved between strategies cognitive diversity is accepted as well as the options for cooperation and conflicts arising from it. If collaboration is achieved between strategies the search for theoretical bases for strategic planning and concrete forms of it is pursued in the direction of the processual and communicative features of strategy too. The point of departure therefore is that the promotion of knowledge city development is by nature more political than technocratic. If a definition of local strategy is sought on this basis, it may be defined as a communicative process, in which the different aims and strategies of many actors are made visible and reconciled, various interests are balanced and touching points and concrete means between many objectives are constantly sought and coordinated. During a continuous process, various goals and strategies of individual organizations are made as parallel as possible by communication and negotiation. Here the mission of the formulation of local strategies is not to guide different actors directly, but to be itself the arena for discussions, battles and quarrels (Healey, 1992).

The notion of collaboration occurring between strategies and the above definition suggest that we should not only ask whether the planning procedure created a unique strategy with a compelling vision but also whether the strategy process enhanced collaboration and communication. In the Helsinki case, the question of whether the strategy process has created new collaboration patterns in a 'triple helix' constellation differs along many dimensions. To cut a long story short again, the overall picture of the strategy's role in boosting collaboration is as follows (the statement in the survey and the share of respondents agreeing with it are presented):

- The strategy process was a good forum for discussions and collective contemplation (91.7% agree with the statement).
- The strategy process increased understanding about the other organizations and thus created soil for future collaboration (89.8% agree).
- The strategy process enabled people to get rid of daily routines and have time for collective future-oriented contemplations (81.7% agree).
- The strategy process has strengthened personal-level networks (69.1% agree).

- The strategy process fostered collaboration between universities and firms (62% agree).
- The strategy process fostered collaboration between universities and municipalities (60.6% agree).
- The strategy process fostered collaboration between universities (58.8% agree).
- The strategy process fostered collaboration between firms (57.4% agree).
- The strategy process fostered collaboration between firms and municipalities (57.0% agree).
- The strategy process fostered collaboration between universities and state agencies (50.5% agree).

Strategy development is a means to foster collaboration but it is also a means of communication, that is, messages from one group of actors to another. Of the respondents, 89.8% perceive that the innovation strategy enabled the HMA to construct a shared message about the area and its future potential as well as to transmit it forward, and 69.1% think that the innovation strategy is also a useful tool for sharpening the place's marketing efforts. In spite of these positive views only half of the respondents think that the key message of the strategy has been disseminated widely in the area or beyond. In all events, it is possible to conclude that the innovation strategy process has served the creation of a core message to be marketed fairly well. Outward-orientated message construction has progressed well and according to the participants internal learning has been an even more significant outcome of the process. As many as 70% of the respondents agree with the statement that strategy work has boosted individual-level learning. Additionally, based on increased collective strategic awareness as well as a shared vocabulary that enables key actors to understand better and discuss emerging issues was born during the process. For its part, the fresh conceptual framework enables collaboration and the finding of targets for development efforts. All this suggests, as 70.6% of the respondents maintain, that the cognitive gap between various stakeholders has narrowed with the shared awareness and vocabulary and that this, if sustainable, may be good news for future collaboration.

Conclusion

Experience in many cities has shown that a strategy document (a plan) is relatively easy to formulate, but that its implementation is rather difficult in its planned form. This frustrates policy makers, or at least it should. In many cases, however, the function of strategic planning is to provide reassurance as much as guidance. Many decision makers find strategies incorporating many nice thoughts and principles, but they may have difficulties comprehending their real essence in terms of their organization or a city region. It may well be that the problem is not in the capabilities of policy makers but in the fact that classical strategic planning has promised too

much. For that reason, for some time now, there has been a move away from overly classical approaches towards a softer grip. As Morgan already stated some time ago, the managers of the future will have to learn to ride turbulent conditions by going with the flow, recognizing that they are always managing processes and the flux rather than stability defining the order of things (Morgan 1991, p. 291.) Morgan's future is today.

Strategy development for knowledge cities is an effort to adapt to major global developments as well as to seek futures, simultaneously. In knowledge city development, strategic planning is sometimes seen as direct guidance for various actors but also the intended strategy, the plan itself, can be seen as an arena of struggle, with different interests competing to determine its content, to determine the outcome of emergence. Here, shaping and organizing attention, formulating and reformulating problems and opportunities, addressing significance and leading perceptions, among other things, emerge as crucial. In a way, a 'local innovation strategy' is a sequence of choices made by many independent actors and a collective strategy process can be seen as a quest for strategic collaboration and awareness building. The question is about boosting collaboration by strengthening collective strategic awareness and finding natural touching points between the strategies of many organizations, but not about having one strategy for many actors. Strategy development is a many-sided tool that has at least the following direct and indirect direction-setting functions and roles in collective development efforts:

- A strategy may be a plan, in which a vision, strategies and adequate measures are presented in order to channel and direct the use of resources.
- The formal strategy process may provide actors with legitimate forums for collaboration.
- A strategy process may be a conscious effort to make sense together, to learn a common language and new concepts and to create shared lines of action and thought patterns and a way of seeing the development and the role of various actors in it. Therefore, strategy development is also about tools for rehearsing futures.
- The intended strategy may be a means of communication, that is, messages from one group of actors to another group.
- The strategy process may be a tool for making better sense of the ongoing open social discourse in a region from the point of view of global developments.

Classical strategic planning is rooted in scientific thinking, and if policy makers are locked in the too instrumental view and illusion of objectiveness of their activities, development practitioners will be left, as Forester (1993) states, 'all too often as frustrated Machiavellians, technicians, or rule-mongering bureaucrats'. We need to acknowledge that strategy development is also a tool in power games between key actors, a tool for stabilizing the power relations between them and/or a tool for excluding some of the actors, and a means to direct the attention of other players towards the front instead of real issues. Therefore, in the hands of skilful network

leaders, whoever they are, strategy development may be a powerful tool to get something done and this piece suggests it ought to be studied and developed as such.

References

- Asheim, BT et al. 2006 *Constructing regional advantage. Principles, perspectives, policies*. Final report, European Commission, DG Research, Brussels.
- Carrillo, FJ 2006, *Knowledge Cities: Approaches, Experiences, and Perspectives*. Oxford, Butterworth-Heinemann.
- Cooke, P. 2002, *Knowledge Economies: Clusters, Learning and Cooperative Advantage*. London, Routledge.
- Forester, J 1993, *Critical Theory, Public policy and Planning Practice. Towards a Critical Pragmatism*. State University of New York Press.
- Healey, P. 1992, 'Planning through debate: The communicative turn in planning theory'. *Town Planning Review*, vol. 63 no 2, pp. 143-162.
- Healey, P, Cameron, S, Davoudi, S, Graham, S & Madanipour, A 1995, 'Introduction: The city – Crisis, change and invention'. In Healey, P, Cameron, S, Davoudi, S, Graham, S & Madanipour, A (eds.) *Managing Cities*. Bath, John Wiley & Sons. pp. 1-20.
- Innovation Strategy – Helsinki Metropolitan Area 2006*. Culminatium.
- Mintzberg, H 1992, 'Crafting strategy'. In Quinn, JB, Mintzberg, H & James, RM (eds.) *The Strategy Process – Concepts, Contexts and Cases*. Prentice-Hall International. pp. 105-113.
- Mintzberg, H 2000, *The Rise and Fall of Strategic Planning – Reconceiving Roles for Planning, Plans, Planners*. 2nd edition. New York, The Free Press.
- Morgan, G 1991, 'Emerging waves and challenges: The need for new competencies and mindsets', In Henry, J (ed.) *Creative Management*. Sage Publications. pp. 283-293.
- Saarivirta, T & Sotarauta, M 2009, Strateginen suunnittelu innovaatioympäristön kehittämisessä: Case Helsingin seudun innovaatiostrategia (Strategic planning in the promotion of local innovation environment: Case HMA innovation strategy). In Sotarauta, M. (ed.) *Itseuudistumisen kapasiteetti ja alueelliset innovaatiopolitiikat* (Self-renewal capacity and regional innovation policies). Tekesin katsaus 263/2009. Helsinki, Tekes. pp. 77-99.
- Sotarauta, M 1997, Escaping the strategic policy-making traps by soft strategies: Redirecting the focus, *Nordisk Samhällsgeografisk Tidskrift*, no 24, pp 48-62.
- Sotarauta, M 2004, *Strategy Development in Learning Cities: From Classical Rhetoric towards Dynamic Capabilities. Literature Review for the Critical -Project*. Sente working papers 8/2004. Tampere.
- Turok, I 2004, Cities, regions and competitiveness. *Regional Studies*, vol. 38, no 9, pp 1069-1083.
- Whittington, R 2001, *What is Strategy – And Does It Matter?* Routledge Series in Analytical Management. Routledge.