



Emerging Clusters: Theoretical, Empirical and Political Perspectives on the Initial Stage of Cluster Evolution

Edited by Dirk Fornahl, Sebastian Henn, and Max-Peter Menzel.
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More than 20 years after Michael Storper and Richard Walker introduced their influential window of locational opportunity approach and other seminal works on new industrial spaces have been put forward, one may argue that the window of *intellectual* opportunity to contribute to the debate on clusters became a rather close one. Is there indeed anything to add? There is. By thoroughly exploring the critical initial stage of regional cluster emergence, this book goes beyond the majority of studies in the field that have analyzed the processes that are taking place within established clusters. It presents a range of stimulating conceptual ideas and rich, methodologically sophisticated empirical material on the development of clusters that challenges some myths in the global cluster hype. Given the continuing popularity of the cluster concept among politicians and practitioners around the world, this task is both academically valuable and socially relevant.

This edited volume is the outcome of a workshop held at the Max Planck Institute in Jena in 2008. It encompasses twelve stand-alone chapters plus the introductory section. These chapters are organized in four parts, each dealing with different aspects of the emergence of clusters by addressing different objects of analysis. Part 1, Accidents, Path Dependency and Strategic Action, tackles the question of how “the seed for clusters may be planted” (6). First in this part, Phil Cooke shows how the emergence of the clean technology clusters in California, North Jutland, Wales, and Norway can be linked back to a number of entrepreneurs who moved into renewable energies and waste recycling from nearby technological fields (e.g., agrofood) in coexisting, geographic proximate clusters. In his line of reasoning, clusters mutate through a “Jacobian process,” in which transmigrating entrepreneurs take the opportunity to utilize the related variety among industries. Although Jacobian clusters may not be in the majority (as Cooke admits as well), this knowledge cross-fertilization argument convincingly specifies the role that chance plays in the window of locational opportunity approach.

Beyond related variety and technological convergence, Part 1 also addresses the impact of economic policy and strategic measures on the evolution of clusters. Ansgar Dorenkamp and Ivo Mossig demonstrate, in their study of the formation of the television industry in Germany, how the diverse fields of national economic policy (system policy, adjustment policy, and structural policy) created market-entry barriers that favored public broadcasters and provided regional first-mover advantages. The current spatial pattern of the industry is accordingly seen as the outcome of both past political decisions representing the decisive trigger, and individual policymakers regularly playing a crucial role. Similarly, Sebastian Henn and Eric Laureys use their case of the reemergence of the Antwerp diamond district to underscore the importance of the intentional actions of individuals (small events), beside chance events, to create or redirect regional economic trajectories. They tellingly link the industry’s development to external interventions (such as the emigration of Jewish diamond workers from Antwerp to the United States during the German occupation in World War II) and thus challenge the original window of locational opportunity approach according to which new centers emerge in consequence of corporate endeavors to cut costs or to expand.

Given the variance of the factors detected so far as potential triggers of cluster genesis, the reader may ask for a synthesis that consolidates the various arguments. Such a

consolidation, however, is not provided. For good reasons: as Rolf Sternberg puts it, “not a single determinant constitutes a necessary or sufficient precondition” (311). In other words, the most common feature of regional clusters remains their idiosyncrasies. Therefore, further reading is in all cases fascinating for those who are interested in empirically rich and theoretically thoughtful case studies.

The three cases constituting Part 2 of the volume, *Institutions and Endogenous Dynamics*, deal with institutions and endogenous dynamics of emerging clusters. First, Anne Otto and Dirk Fornahl reveal in their study of Germany’s audiovisual industry that the local human capital base and interfirm job mobility display different characteristics across the life cycle of a cluster. They found that for emerging clusters, intense inflows of labor are of special importance, along with—again—region-specific parameters, such as the industrial structure (e.g., the presence of a particular large company). Next, Gil Avnimelech and Morris Teubal discuss their study of the coevolution of the venture capital and ICT industries in Israel through a framework that incorporates insights from the literature on complexity. Their results illuminate how the Israeli venture capital industry could, backed by (shifting) technology policies, become one of the most important in the world and unfold its direct and indirect effects on the development of the Israel’s ICT cluster. The final chapter in this part, by Paola Perez-Aleman, is the only one that draws on a case from the Global South, namely, the salmon aquaculture cluster in Chile. The case demonstrates that standards—norms and agreements about product characteristics and production processes—constitute crucial institutions in the emergence of clusters and gives valuable insights into the dynamic interaction and collective learning processes that the industry experienced in its search for international competitiveness.

In Part 3, *Patterns Emergence and Growth*, the volume proceeds with a collection of four further insightful studies. One common feature of these studies is their large interest in spin-off processes and entrepreneurial activities. Spin-off activities of first-generation firms are covered in the investigation of the banking cluster in Amsterdam by Ron Boschma and Floris Ledder; in Max-Peter-Menzel’s in-depth research of the biochip industry in Berlin and Jena; and in the study of the inkjet printing industry in Cambridge, United Kingdom, by Elisabeth Garnsey, Erik Stam, and Brychan Thomas. Donald Patton and Martin Kenney focus on university spin-offs, contrasting the success of the University of Wisconsin–Madison with the practices of the University of Illinois. Each of these studies discloses a range of concerns that deserve additional conceptual and empirical attention: to explore further the impact of postacquisition spin-off activities on innovation and renewal in clusters, to apply graph theory to explain why regional interactions result in new knowledge, and to deepen our understanding of the interplay and dynamics of agglomeration advantages and disadvantages are only few of them. Also methodologically, with the survival analysis of Amsterdam’s banking cluster or the detailed genealogies of firms provided in the biochip study, for example, these cases are inspiring for future work on clusters from an evolutionary perspective.

The two chapters in Part 4, *Clusters Emergence and the Emergence of Cluster Politics*, finally redirect the reader’s attention toward policy concerns. First, Rolf Sternberg observes through his qualitative comparison of 10 high-tech clusters in France, Germany, Japan, the United Kingdom, and the United States, that all determinants corresponding to a state’s technology policy and its research-and-development infrastructure have been particularly important origins for knowledge-intensive clusters. In the last chapter, Matthias Kiese addresses the various ways in which policymakers are learning when they design, implement, and adapt cluster strategies at two different subnational scales within Germany. He persuasively shows that cluster policies tend to be inward looking,

interregional learning occurs merely sporadically, and thus that the evolutionary perspective is a promising means to assess policy transfer and diffusion processes.

Overall, this edited volume provides a rich compilation of profound research that entails a number of challenging and promising ideas. The inspiring read is highly recommended to academics who are interested in entrepreneurship and technological change from an economic geography–regional studies perspective, as well as practitioners and policymakers in the broad field of economic development. It outlines fruitful avenues to be further followed in careful and context-sensitive research and policy approaches on the question of how firms, industries, and regions may find local and translocal answers to current global challenges. No doubt, the window is widely open.

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