

Geographical agglomerations and the development of local networks

MICHAEL STEINER

MICHAEL PLODER

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Outline

- **Key questions**
- **Basic theoretical approaches**
- **Empirical approach**
- **The main findings**

Key questions

- **Which forms of transaction of the observed agents have primary local / regional, which have transregional / national dimension as a consequence?**
- **Which dimensions of agglomeration are related to different forms of behaviour of the agents in the observed network?**
- **What are the dimensions of agglomeration within the given geographical scale?**

- **Different approaches offer different conclusions for the significance of geographical agglomeration in knowledge exchange**
- **Approaches of Gordon/McCann (2000)**
 - the model of pure agglomeration – in the tradition of Marshall
 - industrial-complex model -explanations based on the minimization of spatial transaction costs.
 - social-network model - geographical embeddedness
- **The typologies of Botazzi et al (2001)**
 - horizontally diversified aggl., vertically disintegrated aggl., hierarchical spatially localized relations, agglomerations as sheer outcomes of path-dependence, agglomerations based on knowledge complementarities

- **Case Study: regional relations of firms in the machinery sector in Styria have been investigated by a case study approach.**
- Extensive qualitative interviews with firm representatives and experts
 - Snowball method
 - 18 are producer and 5 are service oriented firms, R&D institutions, policy institutions
 - quantitative surveys of the firms and their R&D and policy partners
- **The investigation focused on the regional transaction network and respectively a regional network**

| Type of the organization | system suppliers | component suppliers | toll manufact | business services | Total |
|--|------------------|---------------------|---------------|-------------------|-----------|
| N | 9 | 5 | 4 | 5 | 23 |
| individual firm (N) | 4 | 3 | 3 | 3 | 13 |
| part of a firm group (N) | 5 | 2 | 1 | 2 | 10 |
| size of the organization (categor.) | | | | | |
| small-sized org. (up to 49 empl.) | 0 | 0 | 2 | 4 | 6 |
| medium-sized org. (50 to 249 empl.) | 2 | 3 | 2 | 0 | 7 |
| large organization (250 and more empl.) | 7 | 2 | 0 | 1 | 10 |
| size of the R&D-unit (categor.) | | | | | |
| no R&D employee (N) | 2 | 5 | 3 | 0 | 10 |
| 1 to 3 R&D employees (N) | 0 | 0 | 1 | 3 | 4 |
| 4 to 7 R&D employees (N) | 3 | 0 | 0 | 0 | 3 |
| 8 to 15 R&D employees (N) | 4 | 0 | 0 | 2 | 6 |

Historical Context

- **In the early 80ties medium-technology sector was dominated by large state owned firms**
 - Supply-side linkages, traditional form of economies of agglomeration
 - Knowledge is mainly oriented to process innovation in the machinery sector

- **At the end of the 80ties large firms were re-privatized and down-sized. Firms needed to learn ...**
 - to develop potentials to innovate as a strategic resource
 - and to collaborate

- **Since the beginning of the 90ties concentration on market niches and technological specialization**
 - supply side as well as the demand side linkages oriented to the national and international level.
 - Firms lost regional material linkages – direct material linkages to leading firms are considerably weak

The main findings

- **Spheres of material interaction differ from the sphere of knowledge intensive interactions in resp. of geographical scale**
- **While material Input-Output linkages are widespread and outward oriented the R&D-oriented sphere is concentrated to the local and regional context**
 - intensive direct and indirect social interaction to a large extent.
- **A typical characteristic of the model of pure agglomeration - a more or less common labour-market pool – could not be observed (low inter-firm mobility)**

- **R&D-intensive export-oriented large firms started to form clubs of closer interaction**
 - especially in respect of R&D, in some cases cooperative R&D-institutions.
 - Missing R&D- and absorption capacity restricts integration of medium- and low-tech SMEs

- **The diffusion of knowledge is highly selective and strongly dependent of the position of firms within networks and their absorptive capacity.**
 - Clubs of the regional elite (insider-outsider problem)
 - driven by social networks

Thank you for your attention!