Networks and clusters: Toward a relational perspective of global and local linkages

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1. Inequality and regional development

- Globally, poverty levels are decreasing
  - % of population under poverty line at all-time low
- BUT: increasing spatial/social inequality in incomes and economic opportunities within countries
- Countries react differently:
  - Germany: strong effective regional policies (by constitution)
  - China: authoritarian central state directs massive investments
  - USA: no strong regional policies – laissez faire
- Populism is on the rise with policies against globalization
  - Large support for anti-immigration agendas
  - Trade wars and policies against global trade
  - Strong resentments against foreign investments
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Relationship median income (2013) and cumulated outward/inward FDIs per capita (2005-13) in U.S. cities (CSAs) (Bathelt & Buchholz 2019)

\[
\ln(\text{Median Income}) = 10.424^{***} + 799.810^{***}x \quad R^2 = 0.29
\]

\[
\ln(\text{Median Income}) = 10.452^{***} + 512.305x \quad R^2 = 0.01
\]
Networks and clusters: Towards a relational perspective

Structure of presentation

1. Inequality and regional development
2. The relational economy and geography
3. Spatial networks and development: Missing links
4. Cluster development: Local, regional, global networks
5. Towards a relational policy of local and global linkages
2. The relational economy and geography

- How to resolve current spatial/social divides?
  - Developed vs. developing countries (currently difficult to target with anti-globalization policies)
  - Intra-urban/regional inequality
  - Inter-urban inequality
  - Urban vs. rural divide

- The latter two require the creation of economic links between growth centers and developing cities/regions

- Such linkages cannot be based on costs alone
  - Development requires knowledge & technology transfers
  - Ongoing learning process
  - Associated with the development of trust and community

→ Thus, we are dealing with a RELATIONAL ECONOMY
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Fundamental conditions of the relational economy
(Bathelt & Glückler 2003; 2011; 2018)

- **Contextuality**
  - *Economic action is embedded in structures of social/institutional relations*
  - *Firms are bound to supplier-customer networks*

- **Path-dependence**
  - *Economic action depends on consequences of former action*
  - *Decisions made in the past cannot easily be reversed*

- **Contingency**
  - *Economic action is not pre-determined*
  - *Firms can always deviate from existing paths*

→ Altogether, firms often form networks, engage in long-term relations and become partners of others
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- Firms in the relational economy:
  - Interaction within/between
  - Organizations
  - Creating innovation and growth
  - Resulting in an evolutionary dynamic

- Geographical lens – 3 types of networks are crucial:
  - Local links (buzz; spillovers)
  - Regional links (urban-rural connect)
  - Global links (global buzz; pipelines)
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3. Spatial networks and development – Missing links

Three success stories

- **Case 1: industrial districts in Italy**
  - *Flexible specialization and trust*
  - *Highly localized division of labor between different cities/villages*
  - *Example: Shoes in Porto Sant’ Elpidio (Scott 1988)* – entire Marche region: 65% Italian shoe exports

- **Policy makers tried to build such districts in other countries**
  - *BUT: little success because of focus on local networks*
  - *Local networks need to be connected to wider markets*
Case 2: fashion cluster in Medellin (Meijia Lopez 2018)
- *Fashion is a core of urban economy: 80,000 direct/indirect jobs with 2,000 suppliers (13% of employment)*
- *Regional policy: cluster initiative aimed at building collaborative networks between firms*
- *Time-consuming process to build trust*
- *Result: 46 firms decided to collaborate in buying supplies*
  - *Increased efficiency and competitiveness*
  - *Collective learning from Japanese organizational principles*
  - *Excellent basis for future collaboration*

What is still needed: link to larger markets (in other countries) for long-term sustainable growth
- *Collective learning of foreign consumer culture*
- *Goal: to stimulate product innovation*
Case 3: semiconductors and medical devices in Costa Rica (Gereffi 2018)
- Government initiatives to strengthen industrial development by attracting foreign investments and creating global linkages
- Semiconductors: led by Intel’s large-scale assembly plant. Few development impulses – no skill development. Later relocated – few development triggers overall
- Medical devices: a larger number of smaller investments. More successful, BUT firms are dispersed across cities. Few linkages between different cities – limited effects

What is missing? A regional strategy to generate spillovers
- Support of concentrated cluster development
- As a basis for local suppliers and specialized training programs
→ Targeting upgrading in the future
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4. Cluster development: Local, regional, global networks

- Conclusion from the three cases:
  - *Economic growth/upgrading can benefit from cluster development (with a nucleus in urban areas)*
  - *Clusters can be drivers of development in surrounding regions*

- To be able to produce sustainable growth, cluster must have:
  - *Developed cluster dimensions and knowledge linkages*
  - *Local networks and buzz* (Storper & Venables 2004)
  - *Global linkages and pipelines* (Owen-Smith & Powell 2004)
  - *Balanced local, regional, global linkages*
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- Cluster dimensions and trade-offs (Bathelt & Boggs 2005)

- **Horizontal dimension:** competition and variation
- **Vertical dimension:** cooperation and interactive learning
- **Institutional dimension:** reproductivity and buzz
- **External dimension:** markets and technologies
- **Power dimension:** coherence and adaptability

1. trade-off: horizontal vs. vertical growth
2. trade-off: over-embeddedness vs. openness
3. trade-off: power asymmetries vs. blind confidence
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- Advantages of being located in a cluster: local buzz, automatic knowledge flows and trust development (Bathelt 2003)
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- BUT: decisive knowledge flows and growth triggers often occur in distant interactions or pipelines

- To participate in these is not an easy task
  - Knowledge flows are not automatic
  - Participation requires investments
  - Trust does not exist by default – but needs to be built – takes time/money

- YET: local buzz and global pipelines stimulate each other
  (Bathelt, Malmberg & Maskell 2004)
  - Self-reinforcing mechanism to generate growth and spillovers
  - BUT: regional support policy needed to avoid negative cluster effects
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- Crucial task for regional policy:
  - How to reduce inter-regional inequality and trigger regional development?
  - One important way: to support inclusive cluster development with balanced local, regional, global linkages
  - This can best be achieved when focusing on an existing industry base (as in Medellin, Third Italy)

Three levels of balanced linkages are necessary:

1. Localized industry nucleus or cluster (typically within a city)
   - Basis for localized linkages and, over time, inter-firm trust
   - Specialized labor market
   - Creative knowledge flows
2. Regional network building (Bathelt 2007)
   - To create spillovers in broader regional economy
   - Key: there needs to be a joint industry base
   - Building supplier linkages
   - Engaging urban and rural firms in events that address joint interests (e.g. global markets, new technologies)
3. Generating international linkages

- *Creating access to other markets through inward/outward investments* ([Cantwell & Iammarino 2003](#)) and/or *links with ethnic migrant communities* ([Portes & Sensenbrenner 1993; Saxenian 2006](#))

- *Linking with industrial cores to establish international knowledge flows* – e.g. *global cluster networks* ([Bathelt & Li 2014; Li & Bathelt 2018](#))

- *Using experiential knowledge to produce customized goods*
Thanks very much for your attention and for inviting me.

I look forward to our discussion!
How to establish global pipelines?
- One possibility: targeted participation in leading international trade fairs (Maskell, Bathelt & Malmberg 2006; Bathelt & Schuldt 2008)
- Collective exhibits to showcase regional capabilities
- Learning from others and picking up ideas for new products
- Using events to create international linkages