

Innovation and Economic Activity: Understanding the Role of Clusters in Industrializing Economies

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Outline

- **Innovation and Context Specificity**
- **Clusters?**
- **Institutions: A Framework**
- **Some Examples**
 - **Durban Automotive Cluster**
 - **Damietta Furniture Making Cluster**
- **Conclusion**

Innovation and Context Specificity

- **Innovation:** “Introduction of a new thing or method..., the embodiment, combination, or synthesis of knowledge in original, relevant, and valued new products, processes, or services” (Luecke and Katz 2003:2).
- **Context Specificity:** “Every locality has incidents of its own which affect in various ways the methods of arrangement of every class of business that is carried on in it: and even in the same place and the same trade no two persons pursuing the same aims will adopt exactly the same routes” (Marshall 1890).

Clusters?

- **It** = Industrial Districts = Industrial Atmospheres = Industrial Agglomeration
- **It**: “socio-territorial entity, characterized by the active co-presence, in an area territorially circumscribed, naturalistically and historically determined, of a community of people and a population of industrial firms...” (Becattini 1990)
- **It**: an agglomeration of firms engaged in “different stages and in different modes of the production of a homogeneous product” (Pike and Senberger 1990).
- **It**: “agglomeration of small and medium-sized firms specialized in one or a few industries in a bounded area” (Panniccia 2002)
- **It**: “a business and social environment conducive to the acquisition of the benefits of proximity deriving from imitation, vicarious learning, quick adoption, and technical change and innovation introduced thanks to the generation of collective or individual new knowledge” (Belussi 2004)

Cluster Determinants

Based on trust and a spirit of cooperation, competitive advantage is derived from:

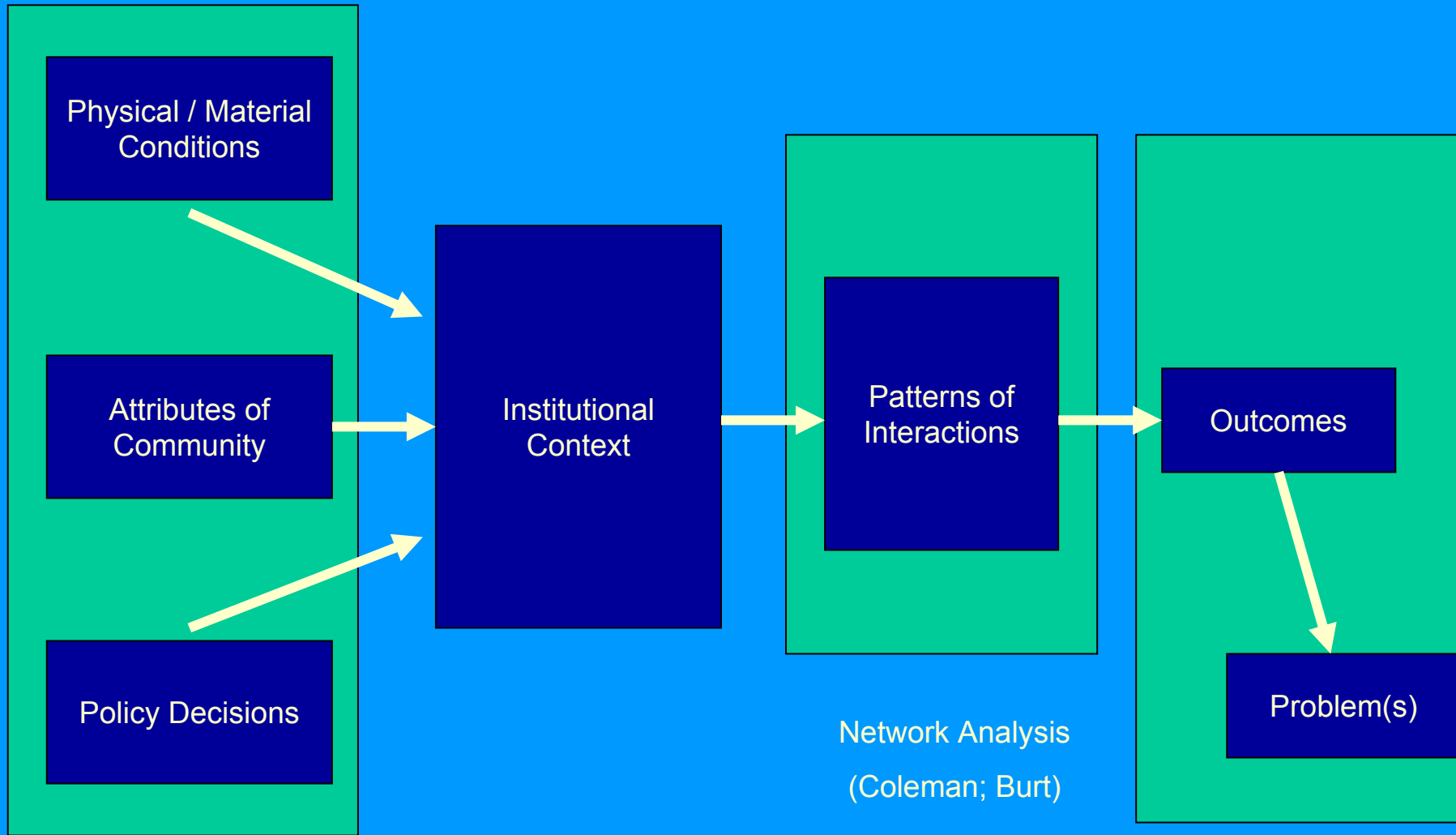
- Increasing returns
- Reduction in transaction costs
- Innovation and technological development from local interactions
- Reduced costs through learning by imitation and emulation
- Localized external economies (labour market, division of labour, competent specialized suppliers)
- First mover advantages due to initial territorial specialization
- Customer-driven organization of production activity

Examples: Prato textile district (Becattini 1990); Silicon Valley (Saxenian 1994); Furniture making in Mississippi and Northern Italy (Rosenfeld 1997)

Institutions

- Rules of the game
 - How the game is played
 - How the game ought to be played
 - Bureaucracy
 - Government
 - Academic entities
 - ???
- ⇒ What exactly are institutions?

Dynamics of the Policy Process



Decision making analysis
(March and Olsen)

Network Analysis
(Coleman; Burt)

Implementation Analysis
(Mazmanian and Sabatier)

What is an institution?

1. A way of thought or action of some prevalence or **permanence**, embedded in the **habits** of a group or the **customs** of a people (Hamilton 1932)
2. **Conventions, rules of action**, embedded in social structure, **locally specific** (Kratke 1999)
3. Settled **habits** of thought **common** to the generality of men (Veblen 1919)
4. **Collective action** exercised by different types of organization (**family, corporation, trade union, state** in control of individual action (Commons 1924)
5. Convenient term for the more important among the widely prevalent, highly **standardized social habits** (Mitchell 1950)
6. **Sets of rules of the game** or **codes of conduct** defining **social practices** (Young 1994)
7. **Formal organizations, patterns of behaviour**, negative **norms** and constraints (Coriat and Dosi 1998)
8. **Mental constructs** (Neale 1987)
9. **Rules of the game** (North 1990) / **How the game is played** (Nelson and Sampat 2001)
10. A set of socially **prescribed** patterns of correlated **behaviour** (Bush 1986)
11. **Prescribed or proscribed** patterns of correlated **behaviour** (Tool 1993)
12. **Constitutional rule systems** for society, **collective choice rules** governing different kinds of organization, **operational rules** of organizations
13. **Norms** that **regulate** relations among individuals (Parsons 1990)

Characteristics and Manifestations of Institutions

Behavioural Institutions: standardized (recognizable) social habits

Cognitive Institutions: mental models and constructs or definitions, based on values and embedded in culture

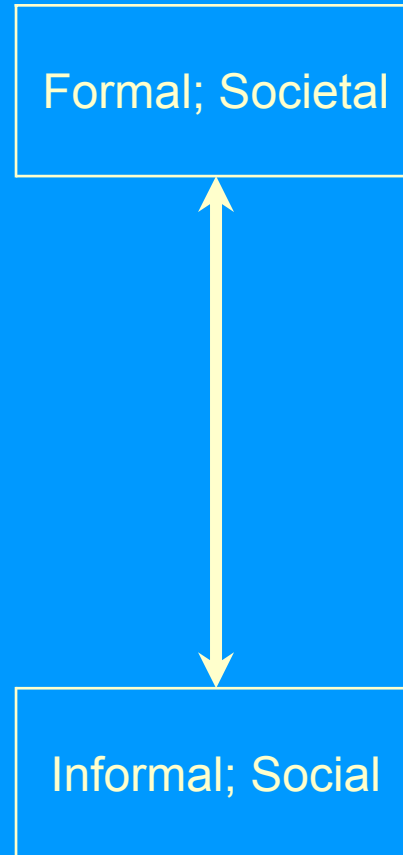
Associative Institutions: mechanisms facilitating prescribed or privileged interaction among different private and public interests

Regulative Institutions: prescriptions and proscriptions as immediate boundaries of action

Constitutive Institutions: prescriptions and proscriptions as ultimate boundaries of action

Typology of Institutions

- Constitutive
- Regulative
- Associative
- Cognitive
- Behavioural



Institutional Analysis of Clusters

- Institutions as “structuring phenomena”
- Identify Institutions
 - ⇒ Qualitative Research
- Identify pathways for policy intervention

Case Study 1: Damietta Furniture Making Cluster

- Ancient port town producing 75% of total furniture production in Egypt
- Historically known as an “entrepreneurial” community
- Little or no history of coordinated activity
- Turbulence in 1970s and 1980s with skilled labour emigrating, fierce foreign competition from China and India → decline in competitive position
- Main problem: lack of cohesion among formal institutions (e.g., Chamber for Trade and Commerce)
- Solution: Partnership between National planning agency and UNDP

Case Study 1: Damietta Furniture Making Cluster

- Institute of National Planning and UNDP:
 - Vision: decentralization and opening up the market
 - Consultation: small, medium, and large manufacturers, exhibitors, and exporters; representatives from donor organizations; government officials at all levels
 - Formation of Committee for Upgrading the Furniture Sector (CUFS)
 - Formation of Association for Upgrading the Furniture Sector in Damietta (AUFSD)

Case Study 1: Damietta Furniture Making Cluster

- AUFSD:
 - Registered as NGO (vision, strategy, internal procedures and by-laws, membership criteria, organizational structure)
 - Internship programmes in collaboration with the local university
 - Skills and equipment upgrading
 - Marketing
 - Intermediary role in arranging loans and other assistance for member firms
 - Representation of the cluster in foreign trade fairs

Case Study 2: Durban Automotive Cluster (DAC)

- Vehicle assembly and parts plants built in 1920s and 1930s
- Additional capacity built in 1960s
- Apartheid drive for “self-sufficiency” in 1960s, 1970s, and 1980s → protectionist trade policy; import substitution
- Problem: Protectionism resulted in high costs, low sales, too many varieties, small market
- Solution: Liberalization + reduced protectionism
- Government + Department of Trade and Industry = Motor Industry Development Programme (MIDP)

Case Study 2: Durban Automotive Cluster (DAC)

- MIDP
 - Transition from protective self-sufficiency (import substitution) to competitive collaboration (market-orientation) through:
 - Import Rebate Credit Certificate (cheaper imports → encourage export by local producers)
 - Inducements for FDI by multinational corps such as Toyota
 - Higher quality standards for the international market
 - Trade agreement with foreign partners for gradual removal of domestic protective policies

Behavioural Institutions

- Standardized (recognizable) social habits
 - manifest in activities of individuals and groups as shared social norms:
 - Collaboration
 - Damietta: Less
 - DAC: More

Cognitive Institutions

- Mental models and constructs or definitions – based on values and embedded in culture :
 - Damietta: individual success
 - DAC: protective self-sufficiency

Associative Institutions

- Mechanisms facilitating prescribed or privileged interaction among different private and public interests
 - Damietta: CUFS
 - DAC: MTI

Regulative Institutions

- Set the immediate bounds for social relations through systems of coercion and sanction
 - Damietta: AUFSD + supporting incentives and legislation
 - DAC: MIDP + supporting incentives and legislation

Constitutive Institutions

- Set the ultimate bounds of social relations through systems of coercion and sanction
 - Damietta: Liberalized markets
 - DAC: Liberalized markets

Conclusions

- Institutions are always slow to catch up with and adjust to new knowledge (learning by organizations and individuals)
- The question is seldom whether to intervene, but how to do so effectively and with the least negative impact:
 - Resonate with pre-existing conditions
 - Work through, or with, current institutions
 - Catalyze complementary institutionalization processes

Public Policy and its Public

The core responsibility of those who deal in public policy – elected officials, administrators, policy analysts, [and academics] – is not simply to discover as objectively as possible what people want for themselves and then to determine and implement the best means of satisfying these wants. It is also to provide the public with alternative visions of what is desirable and possible, to stimulate deliberation about them, provoke a reexamination of premises and values, and thus to broaden the range of potential responses and deepen society's understanding of itself.

Robert Reich, *The Power of Public Ideas* (1988)

Extras

- Definitions of governance
- Main policy analysis frameworks
- Prism
- Diamond
- Superimposed Institutions

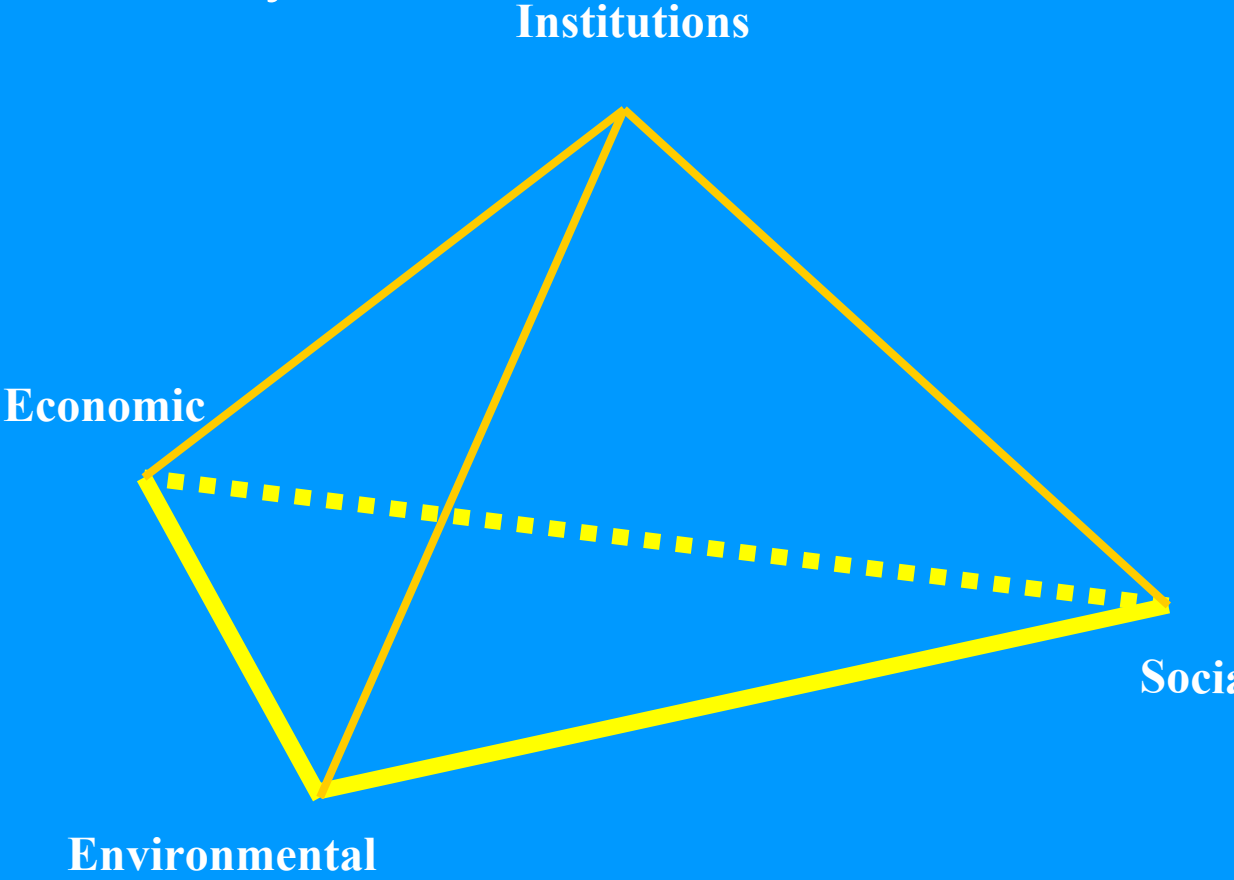
What is Governance?

- Leadership; Exercise of Authority and Control, Power, Coordination
- Managing; Decision Making
- Influence; Behaviour; Conduct
- Interdependence; Transaction; Interaction
- Social, Ecological, and Political Systems
- Social, Political, and Economic Actors
- Society; Hierarchy; Private, Public, and Civic Organizations
- Traditions; Rules; Formal and Informal Institutions
- Structures; Culture; Processes
- Conflicts; Negotiation; Dispute Resolution; Coercion; Influencing; Constituting;
- Knowledge; Devices; Policies
- Networks, Associations, and Alliances
- Stability

Policy Analysis: Approaches

- Advocacy Coalition Framework (Sabatier and Jenkins-Smith 1993, 1999)
- Institutional Analysis and Development framework (Ostrom 1986, 1999)
- Policy Streams Analysis (Kingdon 1984)

Governance for Sustainability



Source: Spangenberg (2002, 2004)

