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LECTURE 12

THE INTERNATIONAL INNOVATION ALLIANCES BETWEEN LARGE FIRMS

Riccardo Cappellin, Course: Innovation and Cognitive Economics, Università di Roma "Tor Vergata"

**International
Knowledge and
Innovation Networks**

Knowledge Creation and Innovation in
Medium-technology Clusters

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NEW HORIZONS IN REGIONAL SCIENCE

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4.23 THE DEVELOPMENT OF INTERNATIONAL KNOWLEDGE AND INNOVATION NETWORKS

Pages 178-185

Firms in medium tech sectors

The internationalization of markets and industrial value chains

The development of international knowledge and innovation networks. The internationalization of knowledge links is still lacking behind.

The international competitiveness of European economy oblige firms to:

- respond to the new emerging needs in **more sophisticated markets**,
- introduce **new products** characterized by **high complexity and quality**,
- organize **complex production systems** with a higher content of know-how and made by different complementary partners.

THE INTERMEDIARIES IN THE INTERNATIONALIZATION PROCESS

Within medium technology clusters, some **traditional intermediaries in international knowledge networks** are:

- MNE - multinational enterprises,
 - investment banks and private equity funds,
 - knowledge intensive business services.
- However, new intermediaries are emerging in international knowledge networks, such as:
- **medium size ("leader") firms**,
 - universities and research centres,
 - regional administrations and interregional cooperation programs,
 - European Union programs.

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THE INTERNATIONALIZATION OF SMALL FIRMS

Small firms may prove ineffective when the innovation and internationalization of the firms become the most important competitive factors.

Medium size firms are **strongly embedded in their regional territory**, have an easy access to tacit knowledge existing within other local actors.

A **mental change is needed**, as even some **medium size firms are reluctant to internationalize in a knowledge perspective**.

The internationalization process of individual firms is easier, when it is supported by the respective economic, social and institutional system.

THE DECISION TO INTERNATIONALIZE

First the decision, on which field and with which partners it should be realised and then the choice on its specific form.

BENEFITS: The aims of the firms, the fields to be considered and the characteristics of the partners. These factors affect the benefits. Cooperation may be instrumental in order to get an easier or faster access to key specific technologies, to expand into new markets, to diversify the scope of products and to improve the image or the relational advantages.

The advantages of an alliance with partners having complementary knowledge may be positively related to the specific characteristics of technology and it increases with increasing complexity, tacit nature, speed of change, specificity and strategic relevance.

A **too high proximity may not lead to cooperation**, but rather to negative effects, such as a lock-in effect or local conflicts. Thus, an intermediate level of proximity seems more adequate.

COSTS: international cooperation in technology between SMEs may be unfeasible if the transaction costs are too high, as in the case of **too high geographical distance, lack of trust or high social disparities and too distant technological level or cognitive distance**.

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The role of distance underlines the role of institutions (institutional distance). Thus, bridging institutions and international coordination of national innovation policies can promote a stronger awareness by the SMEs of the strategic benefits of cooperation, by helping them to identify realistic aims, key fields and complementary partners. In particular, bridging institutions may promote strategic convergence between the various possible partners.

Specific bridging institutions may be required to decrease the transaction costs of the international cooperation and to choose its most appropriate form. In fact, policies may promote the reciprocal trust, the sharing of common values, culture and institutions, sense of belonging, reciprocal knowledge and reputation.

Finally, institutions and policies may address also those organizational factors, which may lead to the failure of alliances, such as asymmetric incentives, lack of commitment, communication, project planning and flexibility.

THE FACTORS OF INTERACTIVE LEARNING AND INNOVATION: THE TKM APPROACH

We may conclude that the factors leading to an international alliance between SMEs are similar to those considered in the Territorial Knowledge Management approach and which promote processes of interactive learning within knowledge and innovation networks. In particular, factors, such as: external stimulus, accessibility, receptivity, common identity, creativity and governance, stimulate the creation and facilitate the success of an international alliance.

Policies may promote a greater accessibility

Policies may also promote a greater receptivity

Policies may promote a greater common identity or sense of belonging, reciprocal trust, a cooperative rather than competitive posture

NATURE OF INTERNATIONALIZATION

TIME: The process of internationalization of firms in a technology perspective should be interpreted as a learning process, where the single phases and forms of international alliances may lead to new and more complex phases and forms according to specific paths of evolution.

SPACE: The process of internationalization has a selective character and a key role is played by "gateways" or "bridging" institutions. The economic strengths of medium size firms should be combined with the greater experience in international relations of other local actors, as in the case of universities, research centres and the regional governments.

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The internationalization process may be interpreted as a learning process extending the model of cooperation between many various private and also public actors existing within a cluster or a local production system to an international dimension.

THE ROLE OF INSTITUTIONS

The governance of international co-operations between SMEs requires regional, national and European institutions.

Institutions play a key role in promoting international economic integration and complement the role of market relations. Thus, in a market perspective, European integration allows the free flows of products and services and it is determined by the abolishment of custom tariffs, adoption of a common currency, improvement in transport and ICT infrastructure and decrease of other barriers, which imply monetary costs to the firms. However, European integration has also an institutional and organizational dimension, as the harmonization of the institutional and organizational framework is required to promote the flows of investments, labour and technological knowledge and social, cultural and institutional links.

THE SCOPE OR FIELDS OF INTERNATIONAL COOPERATION

The process of internationalization is different from the growth of exports or also from the trade of patents and codified knowledge. It is based on a tight integration not only of the markets of products, but also of the internal organization and production processes of the firms and of the knowledge base of the firms.

Moreover, the internationalization process is affecting not only the industrial production, but also the service sectors and the public administrations.

The increased flows of intermediate products, services and production factors and the increased international sharing of codified and tacit knowledge require appropriate forms of governance

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THE SPATIAL FRAMEWORK OF COOPERATION: REGIONAL VS INTERNATIONAL

A first key difference of interregional relations with respect to international relations is the mobility not only of the final goods but also of the intermediate products and production factors.

However, a second difference is represented by the fact that institutional integration is the lowest in the international framework and it reaches its maximum within an individual country. The interregional mobility of intermediate products, material production factors and knowledge, would not be possible without a common institutional framework and the existence of trust relationships, common routines, norms, intermediate and also formal political institutions.

EUROPEAN INTEGRATION

In particular, the European Union with its large share in the international trade and on the global GDP is a paradigmatic model of how a high and increasing market integration is tightly linked with the process of building common political institutions and adopting common public policies (Cappellin, 2004b, 2004c, 2005).

The integration of the markets of final products may be hindered or have a negative effects, as it may determine an increase of regional growth disparities, disparities between the insiders and outsiders and various economic, social and environmental problems for specific firms, sectors or workers within the various regions.

The increasing European market integration should be accompanied by policies aiming at a greater institutional integration.

Thus, according to the model of interactive learning between firms, illustrated in this book, a European economy, which is moving towards the model of the knowledge society, requires new tools in innovation policy for promoting and managing international knowledge and innovation networks between SMEs in medium technology sectors.

Table 13: The process of international integration and the knowledge economy			
International market integration	Knowledge economy: Innovation competition		International institutional integration
	National innovation systems, national champions, national innovation policies	International strategic alliances and joint ventures, European innovation networks, European innovation policy	
	Export orientation, production decentralization, European competition policy, protectionism	International subcontracting networks, financial mergers & acquisitions, European regional policies	
	Industrial economy: Cost competition		

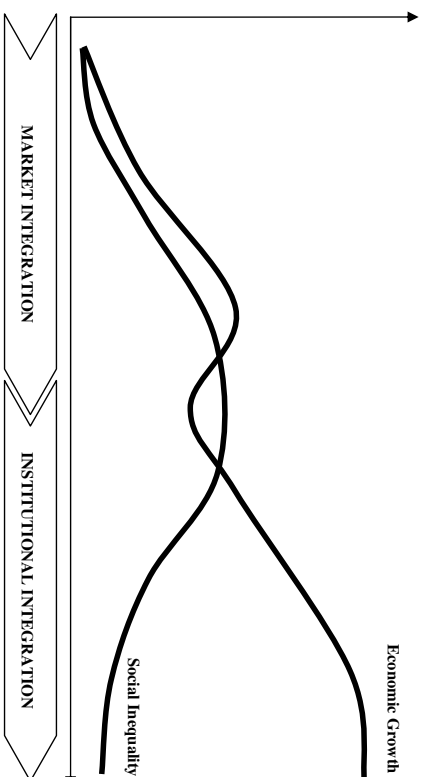


Figure 11: The trade-off between economic growth and social inequality

4.23 THE DEVELOPMENT OF INTERNATIONAL KNOWLEDGE AND INNOVATION NETWORKS

Firms in medium-tech sectors have organized complex production systems characterized by an increasing content of know-how and made by many different complementary partners. That has led to the internationalization of markets and industrial value chains. In fact, clusters specialized in medium-tech sectors have often been characterized by an intense network of international export flows for a long time. More recently, the internationalization of production capacities through investment in foreign countries and through international subcontracting has become widely diffused. However, many small firms have only few international contacts and little experience in international cooperation. While the internationalization of product markets and the industrial supply chain are well developed, the internationalization of knowledge links is still lagging behind. The geographical span of the various forms of technological cooperation by SMEs is mainly regional and the lack of trust and reciprocal knowledge as well as the high cognitive distance are hindering significant developments of international cooperation in innovation based on interactive learning with foreign or distant firms. The international extension of knowledge networks of SMEs calls for the identification of common objectives and collaboration in projects that go beyond their own territory, while maintaining a strong local identity. In fact, innovation and new knowledge are

key factors of the international competitiveness of European firms and regions.

In the case of medium-technology sectors, the international competitiveness of European regions with respect to the less developed emerging countries is explained and may be further strengthened by their capability to:

- respond to the new emerging needs in more sophisticated markets;
 - introduce new products characterized by high complexity and quality;
 - organize complex production systems with a higher content of know-how and made by different complementary partners.
- Within medium-technology clusters, some traditional intermediaries in international knowledge networks are:
- MNEs – multinational enterprises;
 - investment banks and private equity funds;
 - knowledge-intensive business services.

However, new intermediaries are emerging in international knowledge networks, such as:

- medium-sized ('leader') firms;
- universities and research centres;
- regional administrations and interregional cooperation programmes;
- European Union programmes.

Small firms are efficient from a production perspective, as they can

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focus on a precise product specialization and exploit the advantages of subcontracting relationships. However, small firms may prove ineffective when the innovation and internationalization of the firms become the most important competitive factors. On the contrary, medium-sized firms (100–500 employees) have been capable of combining an explicit effort in R&D with the process of internationalization of product markets and the supply chain. Moreover, medium-sized firms are strongly embedded in their regional territory, have easy access to tacit knowledge existing within other local actors and are capable of combining this regional knowledge with external knowledge available in other regions. Therefore, intermediate firms in medium-tech sectors may become important nodes of international knowledge networks linking clusters specialized in medium-technology sectors.

However, an international perspective indicates a series of challenges for medium-sized firms. A mental change is needed, as even some medium-sized firms are reluctant to internationalize from a knowledge perspective or to promote new forms of international interactive learning with foreign partners due to the fear of losing their proprietary know-how, which they believe represents their most important tacit competitive asset. Moreover, medium-sized firms often rely only on forms of economic or commercial internationalization, which prove to be risky and short-sighted if they are not accompanied by the development of international linkages in the cultural and social field also by the other local partners, research centres and

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regional institutions. In fact, the internationalization process of individual firms is easier when it is supported by the respective economic, social and institutional system.

From a methodological perspective, the creation of international cooperation between SMEs implies first the decision on which field and with which partners it should be realized and then the choice of its specific form. Thus, international cooperation between SMEs depends on the aims of the firms, the fields to be considered and the characteristics of the partners. These factors affect the benefits that may accrue to the considered firms in a long-term perspective, as cooperation may be instrumental in order to get an easier or faster access to key specific technologies, to expand into new markets, to diversify the scope of products and to improve the image or the relational advantages with respect to specific clients or suppliers. In fact, SMEs often prefer alliances focused on commercial aims rather than on technological cooperation and prefer national or regional partners to foreign partners.

The advantages of an alliance with partners having complementary knowledge may be positively related to the specific characteristics of technology and it increases with increasing complexity, tacit nature, speed of change, specific city and strategic relevance. In particular, transaction costs are affected by the characteristics of technology and are higher if the technology is characterized by high complexity, tacit components, speed of change, specific city and strategic relevance.

On the other hand, next to the evaluation of the benefits, international cooperation in technology between SMEs may be unfeasible in the short term if the transaction costs are too high, as in the case of too high geographical distance, lack of trust or high social disparities and too distant technological level or cognitive distance. In fact, a lower distance may induce forms of closer integration between the firms, not only from a commercial or productive perspective but also from a financial or technological perspective. Moreover, a too high distance may lead to no relations and to autarchy, which hinders the development of interactive learning and knowledge creation. On the other hand, a too high proximity may not lead to cooperation, but rather to negative effects, such as a lock-in effect or local conflicts. Thus, an intermediate level of proximity seems more adequate.

The role of distance underlines the role of institutions. In fact, SMEs are often myopic and overestimate short-term costs of an international cooperation and underestimate the long-term opportunities. Thus, bridging institutions and international coordination of national innovation policies can promote a stronger awareness by the SMEs of the strategic benefits of cooperation, by helping them to identify realistic aims, key fields and complementary partners. In particular, bridging institutions may stimulate the firms to change their corporate strategy to a forward-looking and leadership model, which is more externally focused or more open to external knowledge and may promote strategic convergence between the various

possible partners. Moreover, specific bridging institutions may be required to decrease the transaction costs of the international cooperation and to choose its most appropriate form. In fact, policies may promote a shorter cognitive distance and should be capable of improving the reciprocal trust, the sharing of common values, culture and institutions, sense of belonging, reciprocal knowledge and reputation. Finally, policies may also address those organizational factors that may lead to the failure of alliances, such as asymmetric incentives, lack of commitment, communication, project planning and flexibility.

The process of internationalization of firms from a technology perspective should be interpreted as a learning process where the single phases and forms of international alliances may lead to new and more complex phases and forms according to specific paths of evolution. Alliances with some firms may be terminated in order to develop alliances with other partners in the same or in different fields. The factors leading to the failure of alliances are similar to those determining its creation. Strategic divergence is the most important factor, accompanied by the failure in arranging the appropriate form of the alliance and to solve organizational differences. We may conclude that the factors leading to an international alliance between SMEs are similar to those considered in the territorial knowledge management approach and that promote processes of interactive learning within knowledge and innovation networks. In particular, factors such as external stimulus, accessibility, receptivity, common identity, creativity

and governance stimulate the creation and facilitate the success of an international alliance. Policies may promote a greater accessibility by reducing cultural and language barriers, promoting greater openness, making compatible different technologies and reducing their complexity, favouring frequent communication and transparency and the interaction within specific interregional working groups. Policies may also promote a greater receptivity, by building internal competencies, transferring skills and capabilities by exposure of workers to the culture of partnering organizations, changing corporate culture and promoting a learning culture. Policies may promote a greater common identity or sense of belonging, reciprocal trust, a cooperative rather than competitive posture, the identification of common strategic aims rather than short-term individual objectives and the design of common institutions with a relative power balance.

Finally, the governance of international cooperations between SMEs requires regional, national and European institutions. In fact, the development of international relations requires a more stable framework compared with what the market mechanisms, multinational companies or private forms of bottom-up international cooperation may be capable of providing. The process of internationalization has a selective character and a key role is played by 'gateways' or 'bridging' institutions. The economic strengths of medium-sized firms should be combined with the greater experience in international relations of other local actors, which may be

much weaker in terms of economic strength than the industrial firms, as in the case of universities, research centres and the regional governments, but can perform a key role as intermediate nodes in international networks. Institutions play a key role in promoting international economic integration and complement the role of market relations. Thus, from a market perspective, European integration allows the free flows of products and services and it is determined by the abolishment of custom tariffs, adoption of a common currency, improvement in transport and ICT infrastructure and decrease of other barriers, which imply monetary costs to the firms. However, European integration also has an institutional and organizational dimension, as the harmonization of the institutional and organizational framework is required to promote the flows of investments, labour and technological knowledge and social, cultural and institutional links.

As institutions play an important role in promoting the international integration of the economies, Figure 4.19 compares the role of institutions in a traditional industrial economy, where competition is determined by production costs, and in a modern knowledge economy, where competition is determined by the speed of innovation. The governance of international relations may be insured by individual private firms or by public institutions. In an industrial economy, firms have to create complex organizations to manage international subcontracting networks, mergers and acquisitions of foreign firms, while European regional policies play a key

role in integrating the economic lagging regions in the European economy and in reducing the economic disparities that hinder European economic and political integration. On the other hand, in a modern knowledge economy, there is the need to overcome the negative effects of closure of the various national innovation systems. Thus, international strategic alliances and joint ventures between the firms and international knowledge and innovation networks and bridging institutions, to be created by the European innovation policy, may be appropriate instruments to promote a greater cognitive proximity between the various actors, to facilitate creativity through diversity and to accelerate the time of innovation.

Therefore, the process of internationalization is different from the growth of exports or also from the trade of patents and codified knowledge. It is based on a close integration not only of the markets of products, but also of the internal organization and production processes of the firms, as these latter become capable of closely working together with firms of other countries. Moreover, the internationalization process is affecting not only the industrial productions, but also the service sectors and the public administrations. The increased flows of intermediate products, services and production factors and the increased international sharing of codified and tacit knowledge require appropriate forms of governance through common private organizations and public, hard and soft, institutions. In fact, a first key difference of interregional relations with respect to international relations is the mobility not only of the final goods but also of

the intermediate products and production factors. Thus, the international relations, once characterized by the mobility only of the final goods, are becoming increasingly similar to interregional relations, which are characterized by the mobility of production factors, due to the process of globalization and international integration. This process may be interpreted as a learning process extending the model of cooperation between many various private and also public actors existing within a cluster or a local production system to an international dimension.

However, a second difference is represented by the fact that institutional integration is the lowest in the international framework and it reaches its maximum within an individual country, as all regions within a country have in common the same institutional framework due to the existence of the state, laws, rules and institutions. In fact, in all countries, the process of economic integration at the interregional level, which implies the interregional mobility of intermediate products, material production factors and knowledge, would not be possible without a common institutional framework and the existence of trust relationships, common routines, norms, intermediate and also formal political institutions.

In particular, the European Union with its large share of international trade and of global GDP is a paradigmatic model of how a high and increasing market integration is closely linked with the process of building common political institutions and adopting common public policies (Cappellin, 2004b, 2004c, 2005). Economic growth increases as a result of

increasing international openness and market integration, which promotes the mobility of final and intermediate products (Figure 4.20). However, the integration of the markets of final products may be hindered or have a negative effects as it may determine an increase of regional growth disparities, disparities between the insiders and outsiders and various economic, social and environmental problems for specific firms, sectors or workers within the various regions. That determines a lower mobility of production factors and knowledge and it may also determine a declining speed of economic growth. Thus, the increasing European market integration should be accompanied by policies aiming at a greater institutional integration, reducing the 'organizational and institutional distance' between regions and sectors. A greater institutional integration may both promote the continuation of economic growth and the decrease of economic, social and environmental problems, by promoting knowledge creation, accessibility and receptivity to local and external knowledge and to other scarce resources and their use in innovative productions.

Thus, according to the model of interactive learning between firms illustrated in this book, a European economy that is moving towards the model of the knowledge society requires new tools in innovation policy for promoting and managing international knowledge and innovation networks between SMEs in medium-technology sectors. The next chapter will deal with these necessary policy changes at the European level.

J. Tidd, J. Bessant and K. Pavitt, Managing Innovation, Chichester: John & Wiley, 2001.
Charter 8: Learning through Alliances

Why collaborate

The **fast rate of technological change** and the **increasingly complex nature of many technologies** – few organizations can maintain in-house expertise.

There is an increasing recognition that one company's **peripheral technologies** are usually another's **core activities** and that it often makes sense to source such technologies externally

Many products incorporate an increasing range of technologies. Firms create alliances as they **require a window on emerging and rapidly advancing area of science.**

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The role of transaction costs (*costs*)

Two factors need to be taken into account when making the decision whether to “make or buy” a technology: the **transaction costs** and **strategic implications**.

Transaction cost analysis focuses on organizational efficiency, including the effects of uncertainty.

Risk can be estimated and is defined in terms of a probability distribution, whereas uncertainty refers to an unknown outcome.

The potential risks associated with collaborations:

- **leakage of information,**
- **loss of control or ownership,**
- **divergent aims and objectives** resulting in conflict.

Sellers or buyers of technology may engage in **opportunistic behaviour** (i.e. high pricing or low performance).

The fewer the potential sources of technology, the lower the **bargaining power** of the purchaser and the **higher the transaction cost**.

Transaction costs are increased where a potential purchaser of technology has **little knowledge of the technology** (low receptivity).

This suggests that **acquisition of external technology** should be used to complement internal R&D rather being a substitute for it.

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Strategic aims (*benefits*)

Transaction costs are not the most significant factors affecting **the decision to acquire external technology**. **Factors such as competitive advantage, market expansion and extending product portfolios** are more important.

The **cumulative effect of outsourcing** various technologies on the basis of transaction costs may limit **future technological options** and reduce **competitiveness in the long term**.

Adopting a **more strategic perspective** focuses attention on **long-term organizational effectiveness, rather than short-term efficiency**.

The optimal technology acquisition strategy in any specific case will depend on the **maturity of the technology**, the firm's **technology position relative to competitors** and the **strategic significance of technology**.

There is a growing realization that **exposure to external sources of technology** can bring about other important organizational benefits, such as **providing an element of "peer review" for the internal R&D**.

Many managers realize the **tactical value of certain types of collaboration** (e.g. to **gain goodwill of customers and governments**, of providing an united front for the promotion of uniform industry-wide standards and to influence future legislation).

In conclusion, **strategic considerations** suggests **which technologies should be developed internally and transaction costs influence how the remaining technologies should be acquired**.

A model for collaboration

Forms of collaboration			
Types of collaboration	Typical duration	Advantages (rationale)	Disadvantages (transaction costs)
Subcontracting/ Supplier relations	Short term	Cost and risks reduction Reduced lead time	Search cost, product performance and quality
Technology licensing	Fixed term	Technology acquisition	Contract costs and constraints
Research consortia	Medium term	Expertise, standards share funding	Knowledge leakages subsequent differentiation
Strategic alliances	Flexible	Low commitment Market access	Potential lock-in Knowledge leakages
Joint ventures	Long tem	Complementary knowhow, dedicated management	Strategic drift Cultural mismatch
Innovation networks	Long term	Dynamic, learning potential	Static inefficiencies

Patterns of collaboration: sectors and regions

The primary motive for collaboration is technology in the following **sectors**: aerospace, automation energy, software. The primary motive for collaboration is **market access** in the following **sectors**: automotive, chemicals, computers, consumer electronics, microelectronics, telecommunications

In general, **large firms** use joint ventures to acquire **technology**, whilst **smaller firms** places greater emphasis on the acquisition of **market knowledge** and **financial support**.

Joint ventures would occur more frequently between partners who are in **industries relatively unrelated** to one another.

In many cases partners exchange market access for technology access and viceversa.

The most common reason for **international alliances** is **market access**, whereas the most common reason for **intra-regional alliances** is **technology acquisition** (i.e. technology can often not be traded at distance, while exports are usual in international relations).

Contrary to claims for globalization, **the number of domestic alliances has increased faster than the international ones** (i.e. the role of a facilitating factor: common National culture). The primary motive collaborating with domestic firms is access to technology, but market access is more important in the case of cross borders alliances.

There appears to be **little international collaboration** between countries **where the technology gap is too high** (i.e. technology collaboration are based on the potential for reciprocal advantage: such as in barter exchanges).

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Factors which contribute to the success of an alliance include:

- the alliance is perceived as **important by all partners**
- a **collaboration "champion"** exists
- a substantial degree of **trust** between partners exists
- **clear project planning** and defined milestones are established
- **frequent communication** between partners, in particular between marketing and technical staff
- the collaborating partners **contribute as expected**
- **benefits** are perceived to be **equally distributed**

Reasons for failure include strategic divergence, procedural problems and cultural mismatch.

Reasons for failure of alliances	
Strategic /goal divergence	50
Partners problems	38
Strong-weak relation	38
Cultural mismatch	25
Insufficient thrust	25
Operational/geographic overlap	25
Personal classe	25
Lack of commitment	25
Unrealistic expectations / time	25
Asymmetric incentives	13

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Factors affecting the success of collaborations	
1. establishing ground rules <ul style="list-style-type: none"> - clearly defined objectives agreed by all parties - clearly defined responsibilities agreed by all parties - realistic aims - defined project milestones 	4. ensuring equality <ul style="list-style-type: none"> - mutual benefit - equality in power /dependency - equality of contribution
2. people factors <ul style="list-style-type: none"> - collaboration champion - commitment at all levels - top management commitment - personal relationships - staffing levels 	5. choice of partner <ul style="list-style-type: none"> - culture / mode of operation - mutual understanding - complementary strengths - past collaboration experience
3. process factors <ul style="list-style-type: none"> - frequent communication - mutual trust (openness /honesty - regular process review - delivered as promised - flexibility 	

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Firms must learn to design alliances:

- legal and financial details
- contribution of the partner
- contribution to the partner
- a prior knowledge
- trust
- communication
- agreement on a business plan, including contingencies for possible dissolution
- flexibility of the goals and structure

While **failure** of an alliance is most likely to be the result of **strategic divergence**, the **success** of an alliance depends to a large extent on **operational and people-related factors**

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The crucial role of mutual trust

Different levels, qualities and sources of trust:

- **contractual** – honouring the accepted legal rules
- **goodwill** – mutual expectation of commitment
- **institutional** – trust based on formal structures
- **network** – persona, family or ethnic / religious ties
- **competence** – trust based on reputation for skills and know-how

Problems of trust:

- over-reliance on contractual and institutional form
- trust is based on the network rather than competence or commitment

Organizational trust requires **longer time horizon** to ensure that **reciprocity** can occur.

The internalization of a partner's skills demands closer and longer contact, such as **formal joint ventures or strategic alliances**.

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Factors promoting learning through alliances:

- intent to learn (*stimulus*)

- competitive posture: cooperate now, compete later
- strategic significance: high to build competencies, rather than to fix a problem
- resource position: scarcity
- relative power balance: balance create instability, rather than harmony

- transparency (*accessibility*)

- social context: language and cultural barriers
- attitude towards outsiders: exclusivity, but absence of "not invented here"
- nature of skills: tacit and systematic, rather than explicit

- receptivity (*absorptive capacity*)

- confidence in abilities: realistic, not too high or not too low
- skills gaps: small, not too substantial
- institutionalization of learning: high, transfer of individual learning to organization

NOTE: These factors are crucial in a regional or European policy aiming to promote technological alliances between regions

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The process of learning in cooperation

Collaborations represent a means for **accessing market** or **technological know-how** or **acquiring assets**. Collaborations are used as an **opportunity to learn new market and technological competencies**.

It is common for collaborative arrangements to evolve over time and objectives may change. **The process of internationalization of firms in a technology perspective should be interpreted as a learning process**, where the single phases and forms of international alliances may lead to new and more complex phases and forms according to specific paths of evolution.

Alliances with some firms may be terminated in order to **develop alliances with other partners** in the same or in different fields. **The factors leading to the failure of alliances are similar to those determining its creation**. Strategic divergence is the most important factor, accompanied by the failure in arranging the appropriate form of the alliance and to solve organizational differences.

A small proportion of firms **view collaboration as an opportunity to learn new skills and knowledge and to develop longer term relationships**.

If learning is a major goal, it is necessary for partners to have **complementary skills and capabilities**, but and **even balance of strengths** is also important.

The trap of complementarity: coupling **complementarity** of resources with divergent strategies. In essence, parents with complementary resources almost inevitably have **different long-term strategic objectives**.

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Learning takes place by design rather than by default, which is more significant than mere leakage of information.

Alliances for transferring tacit (embedded) knowledge present a more subtle management challenge:

- transfers of skills and capabilities
- direct and extensive exposure of personnel to the staff, equipments, systems and culture of the partnering organization

More strategic relationships are necessary to acquire embedded or tacit knowledge

The conversion of tacit to explicit knowledge is a critical mechanism underlying the link between individual and **organizational learning**. Dialogue, discussion experience sharing create and expanding community of interaction, or "knowledge networks", which crosses intra- and interorganizational level and boundaries.

The interaction of groups with different cultures, whether within or beyond the boundaries of organization, is a potential source of learning and innovation. The partner's **ability to learn is a function of skills and culture (receptivity)**.

Organizational structure and culture will determine absorptive capacity in inter-organizational learning. Culture is a difficult concept to grasp and measure, but it helps to distinguish between national, organizational, functional and group cultures.

Therefore, collaboration has shifted **from relatively simple and well defined licensing agreements** or joint ventures, **to more complex and informal relationships** which are much more difficult to manage (*nota: evoluzione delle alleanze e problema per le PMI*)

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Second International Conference on Conflict Management, Peace Economics & Peace Science- Cooperation for a Peaceful and Sustainable World
Thursday 18th - Friday 19th November 2010
Institute of Defence Economics and Management,
Central University of Finance and Economics,
39 Xueyunman Rd, Haidian District, Beijing, China
Theories of interregional co-operation and trans-border regions in the European Union: common identity, innovation and institutions
Ricardo Cappelletti

4. Economic theory and interregional cooperation

4.1 Public goods and external economies

A public good is a good which is non rivalrous and non excludable. Non-rivalry means that consumption of the good by one individual does not reduce availability of the good for consumption by others; and non-excludability that no one can be effectively excluded from using the good. In some respect the case of public goods is similar to that of external economies, since as in these latter a benefit is received by the user without being obliged to pay a price. Therefore, as in the case of external economies, the production of a public good requires a superior authority, which is capable to impose to every user a fee or a tax in order to finance the production of the public good.

Paul A. Samuelson is usually credited as the first economist to develop the theory of public goods. In his classic 1954 paper *The Pure Theory of Public Expenditure*,^[2] he defined a public good, or as he called it in the paper a “collective consumption good”, as follows:
...[goods] which all enjoy in common in the sense that each individual’s consumption of such a good leads to no subtractions from any other individual’s consumption of that good...

	Excludable	Non-excludable
Rivalrous	Private good food, clothing, cars, personal electronics	Common goods common pool of resources fish stocks, timber, coal, national health service
Non-rivalrous	Club goods cinemas, private parks, satellite television	Public good free-to-air television, air, national defense

Source: Public goods in www.wikipedia.org

Important cases of public goods are clean air and environment, free to air television transmissions, basic research and codified knowledge. In fact, public goods require the existence of geographical proximity between the actors as the higher the distance the lower is the possibility to use a common public good, such as in the case of a lighthouse which is only benefiting the ships which are close to it. Thus, in a geographical perspective the case of public goods is often linked to the absence of one of the two characteristics of non excludability and non rivalry, which characterize the case of the “collective goods” and of the “club goods”, as indicated in table 1.

In fact a good which is rivalrous but *non-excludable* is sometimes called a common pool of resource. These goods give rise to the so called “tragedy of the commons” as unregulated use of the good create a damage for the other actors, when the supply of the good is limited. For example, it is so difficult to enforce restrictions on deep sea fishing that the world’s fish stocks can be seen as a non-excludable resource, but one which is finite and diminishing.

AREAS OF COOPERATION

Geographical proximity is often a precondition, since in most of the cases cross-border co-operation is occurring between neighbouring regions. For instance, interregional collaborations may develop between China and Russia or Korea or Japan o India. Therefore, interregional cooperation may be useful when there are externalities, which overcome regional and national borders, or there are public goods, collective goods and club goods.

The **military security** which is the result of an alliance between two countries may be considered as a public good in the relationships between these regions. Thus, important cases of international co-operations are those of military alliances for the military defence and security and also **diplomatic alliances** between various countries in order to jointly sustain the collective power or influence of these countries in international organizations, such as the UN council or the G20 meetings.

Another case of a common public good is that of regions sharing a common geographical position in an international context, as that may increase their **overall attraction of tourism, traffic flows, direct foreign investments**. In fact, countries belonging to the same sub-continent or to a large transnational region can play a common role at the global level.

In fact, at the interregional level a public good could be the **common identity and culture**, the common productive capabilities and the common geographical position of the various regions belonging to the same trans-border macro-region, since each specific area in a macro-region may be considered by foreign investors or tourist as a gateway to the respective larger macro-region.

The most frequent cases of interregional co-operations are those related to **the joint exploitation of water resources, fishing basins, mineral deposits and of environmental spill-overs**. In these cases the overall supply of the good to be considered is shared by each individual region and in some cases there can be a congestion effect as one user may oust other users. In these cases, conflicts may arise ("the tragedy of commons") due to the unrestrained use by a region or country of a common resource.

In some cases the good can be jointly produced by some regions if there are **economies of scale**. This case is similar to the sharing of production factors between various firms, which collaborate between them. In fact, collaboration is required when a good or service can be jointly produced, such as a **joint project in research** or in **industrial production** between two countries or regions. However, differently from private firms and single individuals **the aim of collaboration** between countries or regions is not only profits or utility or even economic growth but it most often consists in a **more general aim, such as sustainability, survival or power**.

In most cases it is important that the various regions and countries tackle measures and invest resources in order to **strengthen the common competitive advantage**. That requires the **creation of a common authority** since the effect of policies of an individual region would create positive spill-over for the other regions without a contribution to the production costs.

4.2 Club goods

Club goods (artificially-scarce goods) are a sub-type of public goods, that are **excludable but non rivalrous**, at least until reaching a point where congestion occurs. Club goods represent an intermediate case between the private and the public goods since they do not have the rivalry characteristic of the former and the non excludability characteristics of the second.

Club goods are very frequent in the case of the production of **products and services related to the final demand of many individual consumers** and encompass private golf courses, health clubs, hospitals, libraries, universities, movie theaters, telephone systems, cable television, local public transport and the services provided by associations or a voluntary group to their members.

Buchanan (1965) viewed clubs as **a private, nongovernmental alternative to the optimal provision of a class of public goods**, later known as club goods, that are excludable and subject to some rivalry in the form of congestion. He also hypothesized a *cooperative* or coordinated action by the members to maximize the welfare of the group.

An important variant of the Buchanan model is the McGuire (1974) model. As in the Buchanan model, homogeneous members are assumed to share club cost and utilization rates are fixed, but, unlike the Buchanan model, the club cost is assumed to be always covered by the members.

First, privately owned and operated clubs **must be voluntary**; members choose to belong because they anticipate a net benefit.

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Second, club goods, unlike pure public goods, **involve sharing that may result in congestion or crowding**.

Third, club goods require an exclusive group whereby **non members are excluded**. In contrast, pure public goods are associated with inclusive groups, since additional users can bring down per-person fees and impose no crowding costs on others.

In the case of the club-good the underlying marginal cost of giving the good to more people is low or zero, but it is possible to hinder the access to the good to those who are unwilling or unable to pay a profit-maximizing price. In the Samuelsonian sum of marginal rate of substitution (MRS) condition, **some MRSs can be negative for a pure public good**. The same is not the case for privately provided club goods, because the right of costless exit is always available.

Perhaps, the best empirical measurement of club theory involved the study of **highways**, in which progress has been made in estimating a congestion function based on traffic spacing, speed, and numbers (e.g., Boardman and Lave, 1977). The **roadway literature** examined the use of a congestion-internalizing toll to finance road provision.

Also **a scheme of interregional cooperation or an international alliance or a monetary union** and the creation of superior authority, such as in the case of **the European Union, can be considered as a club good**. Also **a nation can be seen as a club** whose members are its citizens and the government would then be the manager of this club. Also, roads and **cities may be considered as club goods** and are subject to crowding and exclusion. Thus the concept of club goods can be used in defining the jurisdictional size in regional economics.

The case of club goods is linked to **the contribution of Charles Tiebout** (1956), who developed a theory of jurisdictions, that provide a single shared good., whereby a heterogeneous population partitioned themselves into homogeneous clubs by **choosing the jurisdiction** with the tax-public good package that best suited their tastes. Thus **club goods may lead both to spatial segregation or increasing disparities between regions** and also to forms of cooperation between regions.

An increase of the number of participants may lead to positive and also to negative effects. For a public utility, Jack Wiseman (1957) put forward a club principle for sharing cost among users: an increase in membership reduces the cost per unit of service as scale economies are achieved. On the other hand, in the *Logic of Collective Action*, Mancur Olson (1965) indicated the need for exclusive clubs that restricted membership size owing to congestion or crowding as a greater utilization of an impure public good by one user decreases the benefits or the quality of service still available to others.

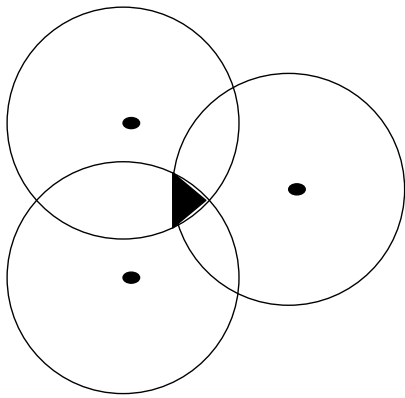


Figure 1: Economies of agglomeration

When we look to the cost of production or the supply side, the case of club goods may be interpreted in a spatial perspective through the well known **Weber's model of industrial agglomeration**. In fact three firms may decide to jointly locate or concentrate part of their production in a specific area, in order to exploit the economies of scale. That is possible when the saving in the production costs is greater than the additional transport cost with respect to optimal individual location. That occurs when the three "critical isodapanes", representing the geometric locus of the points where the additional transport cost is equal to the saving in the production costs, intersect between them. Clearly this case may only occur through a negotiation between the firms and an equitable distribution of the net benefit or when there is a common authority capable to impose that solution to the three firms, such as in the case of common ownership. This model may also explain that contiguous region may decide to cooperate and produce a common service, such as an airport or an university centre within an easily accessible intermediate area.

When we look to the market area, the case of club goods is also useful in order to explain the system of federalism and the principle of vertical subsidiarity, according to which each function should be attributed to the lowest efficient decision level within the hierarchical system of relationships between regions, nation-states, and the EC. Therefore, functions should not be transferred to a superior level when they can be efficiently exercised at a lower level.

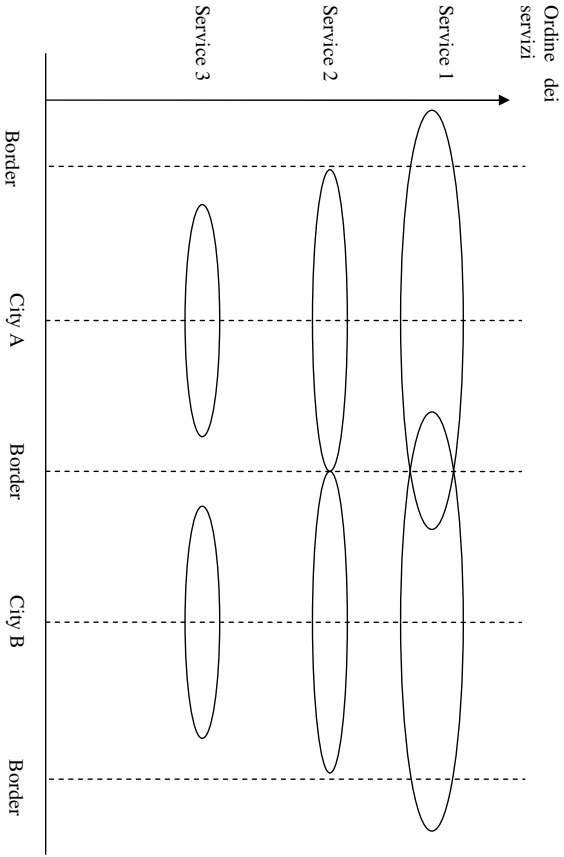


Figura 3: Bacins of services, administrative borders and areas of cooperation

Source: Cappellin, R. (1993), Interregional cooperation in Europe: an introduction, in Cappellin, R. and Bailey, P. (eds.) Regional Networks, Border Regions and European Integration, Pion: London.

In fact, the actual solution may be rather ambiguous and depends on the specific country and region concerned, and especially on the different approaches adopted in the specific policy fields considered. Thus a traditional industrial policy based on financial incentives may be managed more efficiently at the national level, whereas a modern industrial policy based on innovation promotion and on sectoral technological interdependencies could be more efficiently organized at the local level. That explain that there is a mutual interdependence between changes in the approach to economic policy and changes in the optimal institutional solution in the relationships between regions and nation-states.

A further limit of the subsidiarity principle, apart from its relative ambiguity, is its **hierarchical character**, as it explicitly takes into account only vertical relations between the regional, the national, and the EC levels. Therefore, it would imply a shift to higher levels of all competences related to problems which have a superregional dimension. This is a serious limitation, as most problems have clearly interregional spillover effects across regional boundaries.

On the contrary, **interregional cooperation, both in a bilateral and in a multiregional framework, seems an institutional and organizational solution that is more efficient than simply creating new 'authorities' to tackle those cases of policy interventions which, despite having a superregional dimension, do not in fact have a clearly national relevance.**

This may be the case **when only a limited number of regions in a given country have a common interest in the problem considered**. A further typical case is that of relationships between border regions, as the coordination of respective national administrations, which are much less familiar with the concrete problems at hand, would often imply greater problems than direct negotiation between the regional governments of the regions concerned.

This problem is illustrated by figure 1, where the various functions are organized according to a hierarchical principle starting from those which imply a smaller planning geographical unit to those which, for their efficient management, imply a larger territorial framework. The horizontal axis indicates various location points, which correspond to different regional administrations. Thus, for some functions the relevant areas do not intersect and total autonomy can be allowed to each regional administration. On the other hand, in the case of superregional problems, bilateral or multilateral cooperation schemes may be more efficient solutions rather than the complete delegation of power to a superregional or national authority.

According to this approach, power should be delegated to a superregional or national authority, which may have its own legitimacy and act autonomously from the various regional governments considered, **only when the area of overlap between the regions concerned represents the largest portion or is just greater than half of their territory.**

Thus, the principle of interregional cooperation is consistent with a bottom-up decisionmaking process and it appears as a logical extension of the principle of subsidiarity. In fact, the impulse to cooperate comes from the individual local governmental units as much as from individual firms and local lobbying groups. Interregional cooperation is both the effect of and an instrument aimed at promoting the active participation of local actors.

4.3 Relational goods and empathy

Relational goods display two peculiar features. They cannot be enjoyed alone, but exists in as much as they are shared; and their production and consumption very often cannot be separated: relational goods are produced and consumed at the same time through participation in some social activity with other people.

In relational goods production, investment and consumption coincide since participating to a relationship is both an act of production (my presence contributes to the increase in the value of the good), investment (the time invested in the relationship makes it stronger) and consumption (I enjoy it while producing it).

Examples of relational goods include friendship and enjoyment of shared leisure. Two peculiar aspects of relational goods are that they cannot be enjoyed alone and that it is mostly very difficult to separate their production from their consumption since they easily coincide. Indeed not consumers and producers are the same agents, but social participation produces relational goods at the same time, that it lets participants to consume them, i.e. enjoy them: relational goods are a special case of Cornes and Sandler's joint production model.

Relational goods are brought about by participation to social activities, which are time-intensive. They are scarce goods because their enjoyment is subject to a time budget constraint.

These features help to understand that the production process of these goods is the meeting or the encounter' in Gui 2005's definition - with family and friends or with a wider net of partners.

According to Becchetti, L. and Pelloni (2010), relational goods have often been confused with private goods even though they have completely different, sometimes opposite, characteristics.

Relational goods are a specific kind of local public goods (requiring the joint participation of at least two individuals) for which investment, production and consumption coincide (Gui, 2000; Ullman, 1989).

Relational goods are local public goods in the sense that non-excludability and non rivalry are limited to participants. Actually, they are a special kind of public goods since they should be more properly defined as anti-rival than non rival since their very same nature is based on interpersonal sharing of them.

This case of interactive use-production is different from the previous case of public goods, where the relationships between the various partners where indirect and yet connected by the individual and often rival consumption of a common pool of a good.

Bardsley and Sugden (2006) use the Adam Smith's Theory of Moral Sentiments concept of fellow-feelings', to describe the mental states produced during such non instrumental social interactions. Mounier (1949), Levinas (1972) and Buber (2002) consider the human nature as intrinsically relational (or persons as "knots into which relationships are tied,) and thereby argue that human flourishing is impossible without a good relational life.

This does not prevent the possibility that relational goods are bundled with other goods. When travel agents sell packaged holidays for affinity groups, they are in a sense also putting in the bundle the companionship of fellow-customers, while clubs the companionship of fellow members (Beccchetti, Giachin and Pelloni, 2009a). In such case the non instrumentality of the companionship is preserved by the fact that the actual producers of the relational goods are not their sellers (even though it is not said that the bundling produces the best quality of relational goods).

Given that a trustful atmosphere may depend not only on law but also on norms which are fostered by interpersonal relations (Putnam 2000) relational goods are an important factor easing productive relationships and the production of public goods.

To understand it consider that, with extremely rare exceptions, relationships do not appear directly in the *homo oeconomicus* utility function. An objection to this point may be that others are nonetheless, even though indirectly, taken into account in consumer choices since they are incorporated into leisure or purchasing choices (i.e. strong relational preferences may increase the demand for large houses versus small lofts, or family cars versus single place cars, etc.).

In some cases, the consumption of some goods and services, such as those caratterizieng specific fashions, is the instrument in order to participate to a given community and to allow to the consumer the possibility to socialize with other actors, characterized by a similar preferences, knowledge or culture. In this perspective, the definition of "community goods" seems more appropriate than that of "club goods". Research should investigate the nature of these new communities and the characteristics of their members, to develop recommendations for changes in local governance and strategies for city regions.

In the case of these "community goods" the payment of the price is not the main instrument to allow a potential consumer to use the good, as the knowledge of the rules governing that community and a deep knowledge of the specific field of activity, are conditions not only in order to appreciate the product, but also in order to be personally recognized by the other specific consumers and to be allowed to enter in the considered community of the users.

Relational good imply that each partner is directly providing a service to the other partners and these latter reciprocate in providing a similar contribution. They imply an interactive relationship in the use-production of a good. Clearly also these interactions are affected by geographical proximity.

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As each region is directly contributing to the wellbeing of the other regions, the concept of "empathy" is especially important in the case of relational goods.

In fact, first of all, interregional cooperation may consist in the reciprocal solidarity and the humanitarian aid in the case of natural disasters.

In particular, interregional cooperation may promote interactions which are connected to the diffusion and sharing of common models of life and use of the free time and of consumption. In fact, contiguous regions often share the same taste for music, cuisine and common ethical and religious values. Tight and reciprocal interregional relations lead to the exchange of information, ideas, knowledge and people and lead to the sharing of a common culture, art, language and even religion or political beliefs. That may also promote the creation of common cultural, political or economic associations, as it will be considered later with the related concept of "social capital" and networks.

Another case of relational good is that of the exchange of tourist flows, when residents of a region are visiting the other regions and viceversa. Exchange and common participation in sport competition is also a result of these forms of interregional cooperation. Another similar case is that of exchange of students between the universities and the exchange of ideas and knowledge between research centres. In each of these case the reciprocity of exchange or the joint participation is crucial for the very existence of the considered good.

On the other hand reciprocal relations and exchanges may also lead to negative externalities o negative relational goods ("bads"). That is the case of cross-border migrations, which may lead to ethnic conflicts between the migrants and the indigenous population. In fact, interregional cooperation is often required in order to tackle problems of language and cultural minorities and to promote their better integration in foreign countries and regions.

Thus, the consideration of "relational goods" highlights that interregional cooperation is often related to the emergence of new cultural values, new needs, new demand and also new services in the various regions. That may lead to the creation of a new transregional identity between the regions which are more tightly interacting within a macro-area and this transregional identity may co-exists with the national identity which is linking the regions to the other region of the same country.

4.4 Social capital

Social capital is made by trust and civic norms and voluntary associations and horizontal organization. Social capital may be defined as the norms and social relations embedded in social structures of societies that enable people to coordinate action to achieve desired goals. This definition highlights the role both of structural factors such as networks and intermediate institutions and of functional factors such the consensus on common aims to be achieved through coordinated actions. Social capital may be created in different groups, i.e. at different institutional levels: family, firms, government and civil society.

Social capital is the collection of those productive assets that are incorporated in the social structure of a group (rather than in physical goods and individual human beings, as physical and human capital) and that allow cooperation among its members to reach common goals.

The rules of the economic system are the institutions or the social capital. Thus, social capital is like an immaterial infrastructure, which as the transport infrastructures allows a decrease of the costs in the relationships or like a software allows the working of a system of production.

The collective ethic is given by the formal and informal or not yet codified/written norms, such as in the case of the praxis. The individual ethic is represented by the respect of those norms. At the collective level, the ethic is linked to the harmony between the individual parts. It is given by the working rules of a given economic system. These collective rules concern the linkages and the different forms of interaction between the various actors.

Social capital is accumulated through social participation in group activities. In fact, social capital may be seen as an input in the production of relational goods. On the other hand high social participation brings about social capital accumulation as a by-product. For instance, trust (or empathy may be reinforces and generalized though social interaction. Likewise, high social participation may lead to the formation of new associations, while continuing to feed the existing ones.

The development of interregional cooperation is also linked to the building of reciprocal trust relationships, of common values and norms and intermediate institutions. That is often called "social capital" and it is important not only at the local level, for facilitating the relationships of local actors, but also at the interregional level for the relationships of actors in different regions.

Interregional cooperation may be related to the development of networks and social capital and the creation intermediate institutions. That implies a shift from a micro individual to a macro or collective perspective.

Hard and soft networks cross regional and national borders and allow to overcome missing links between mayor regions and urban areas. Thus, the development of networks of modern services is required in order to support the collaboration between the firms in the production field. For example, the greater specialization of the firms and the division of the supply chain in various production phases lead to the development of international logistic and transport services, such as maritime and air transports, and to the need of increasing the capacities of international ports and airports.

Moreover, there is the need for specialized know how and for the creation of alliances between the specialised providers of these services at the international level.

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Other service activities which develop relationships at the interregional level are large commercial fairs (such World Expo) and international banks or major stock exchanges, which facilitate the international capital flows.

Interregional cooperation is linked to the decrease not only of geographical distance but also of the institutional or organizational distance. In fact, the process of interregional integration requires the removal not only of custom barriers and decrease of transport and communication costs, but also of non custom barriers and an harmonization of institutions in order to facilitate the exchange of services, the flows of direct investments and mergers and acquisition between firms, the movement of labour and of tourist flows.

An important role can play the creation of cultural, technical and economic associations, forums and working groups at the interregional level on specific issues. These different initiatives and creation and strengthening of stable relationships by the local and regional governments may be defined as "regional foreign policy" or a policy of international relations.

The national institutions play a major role, but the local and regional institutions are often the bridge between the actors of the various society and economy and can stimulate them to undertake specific joint projects. The existence of international agreements between states favouring interregional cooperation may favour the initiatives of operational projects organised by private actors and public institutions at the regional level. For example, the long tradition of interregional cooperation within the European Union and the extensive experience accumulated with programmes, such as Interreg and Urbact, may represent a model for other countries and regions.

4.5 The cognitive and evolutionary approach

An analysis of the factors leading to conflict or cooperation can be based on the indications of cognitive literature. In fact, according to a cognitive approach a conflict is the result of a closer spatial distance between two actors or firms, leading to a contact and a reciprocal stimulus, which is perceived as a threat for the respective security or identity. This is occurring when the two considered parties are characterized by a too large cognitive distance or a too different mind set or culture, which hinders a collaboration.

For example, in an urban setting, the recent immigration from distant countries of an high number of people with different cultures and capabilities may challenge a localized community which has its own "ethos" or customs, habits or identity. Immigration is perceived as an invasion of the own territory, as in the B case of Figure 1. This discomfort often translates into fear or the perception of a dangerous menace by the inhabitants. That develops a sentiment of hostility and even of enmity, which may lead to reactions of exaggerated and irrational self-defence and weaken the natural propensity to solidarity within that community.

As indicated by the concept of Jacobs agglomeration economies, an higher proximity allows diversity and this latter is powerful source of variety. Creativity is related to openness and allows to each region to better exploit his innovation capabilities and to diversify and specialize into new fields.

Clearly, these forms of interactive learning require and high receptivity, sharing of cultural mode or a low cognitive distance and high openness between the partners. In particular, these interactive processes of learning lead to the creation of new knowledge and avoid the danger of "lock-in" or that the regions will be unable to accept new ideas and resist to change.

Interregional cooperation may be related to the development of interactive learning processes between the various regions which is leading to the creation of new knowledge or know-how in tackling common problems. That is similar to the private firms, where international alliances are often related to joint effort in innovation and the sharing of complementary knowledge. For example, interregional cooperation may promote the participation of local universities and research centres to the organization of common projects leading to new discoveries.

However, cooperation may also be useful for promoting exchange of know-how and best practices between the local and regional public administrations, in the development of new services which contribute to a better quality of life for the local residents of the various regions. For example, interregional cooperation may be instrumental for exchanges in the case of modern services and programmes, such as those in the field of health, environmental policies, urban planning and transport, vocational training, social assistance, cultural and sport events. In these fields there is not competition between the various regions and an exchange of experience is reciprocally useful.