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The role of networks in the innovation process of SMEs operating in forest areas

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Outline

1. Introduction: innovations and SMEs
2. Methodological elements for a networks analysis:
 - definitions
 - main types
 - evolution
3. A field survey: a comparative analysis of 4 networks
4. Conclusions

1. Introduction: innovation and SMEs



- **Process innovations:** similar problems and potentials for large companies and SMEs (more flexible, less knowledge-based)
- **Innovative products: 3 types of innovation**
 - A. absolute new products/services
 - B. incremental innovation (improved products and services)
 - C. subjective differentiation (based on communication strategy, branding, etc.)

A. Absolute new products

- Forest products/services
- Semi-finished products
- Final products

Very low

Relatively high

potentials for innovation

Non-patentable
(very common in the forest sector):
no stable sources of income
(imitation)

Patentable → high individual profit, no high impact on the local community

LVL flanges with an OSB web-form I-beams, which are fastened to an LVL beam



Source: APA - The Engineered Wood Association, 2005.

Laminated Veneer Lumber

Pellets



Concerts in the forest



Art in the forest: Arte Sella in Italy (www.artesella.it)



Canopy forests, adventure parks, sports and organized recreation



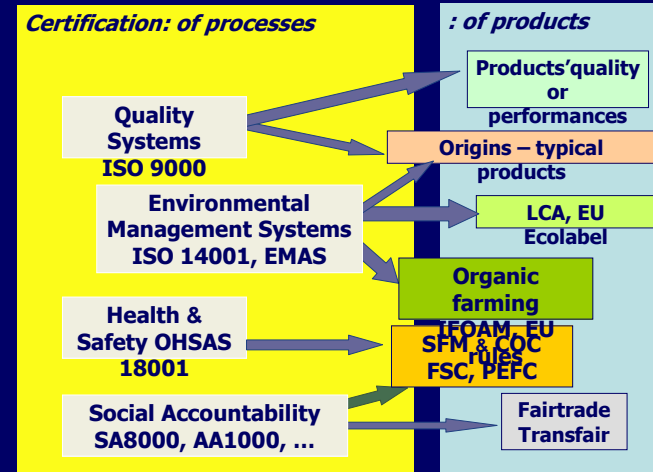
B. Incremental innovations: improved products and services

Services:

- Sorting and grading
- Kiln drying
- Packaging
- Branding
- Certification and (eco)labelling



Certification and labelling



C. Subjective differentiation

Not a new product or an improved product or service,
but an old product that is presented and perceived as a new one

→ Essential role of promotion

A label that is strengthening the market penetration of the product without any change in forest management



Pinus mugo aromatic essence PEFC-certified in Italy (PEFC 2006)

Promotion based not on real facts,
but on subjective perceptions/beliefs



Innovation and SMEs: problems and potentials

	<i>Key factors for innovation development</i>	<i>Innovators</i>
A. absolute new products/ services	Creativity, investments in R&D	Single company
B. incremental innovation	Observation, imitation and adaptation	SMEs, sometimes in a network
C. subjective differentiation	Investment in promotion	Large companies or SMEs in a network

2. Methodological elements for a network analysis:

- definitions
- main types
- evolution



Networks ("strategic alliances") definitions (1/2)

- A coalition of two or more organizations intended to achieve mutually beneficial goals (Varadarajan and Cunningham 1995).
- A mode of organization that can be used by managers or entrepreneurs to position their firms in a stronger competitive stance (Jarillo 1988).
- An intentionally formed group of small- and medium-sized profit-oriented firms in which the firms (1) are geographically proximate, (2) operate within the same industry, potentially sharing inputs and outputs, and (3) undertake direct interactions with each other for specific business outcomes. The interactions may include joint production, new product development, collective marketing and employee training (Provan and Milward 1995).
- Two or more organizations involved in long term relationships. A network may be viewed as consisting of "nodes" or "positions" (firms, trade associations, other types of organizations, etc.) and links (interaction between the nodes). The links constitute a reflection and recognition of interdependence. They are based on relationships over time (Thorelli 1986).
- A close yet non-exclusive relationship with other members (Dennis 2000).
- An organizational form logically intermediate between the pure market and vertically integrated firm (Nohria and Eccles 1992 in Dennis 2000).
- Value-adding partnerships that facilitate the exchange of experience and knowledge between member companies (Johnston and Lawrence 1988 in Dennis 2000).

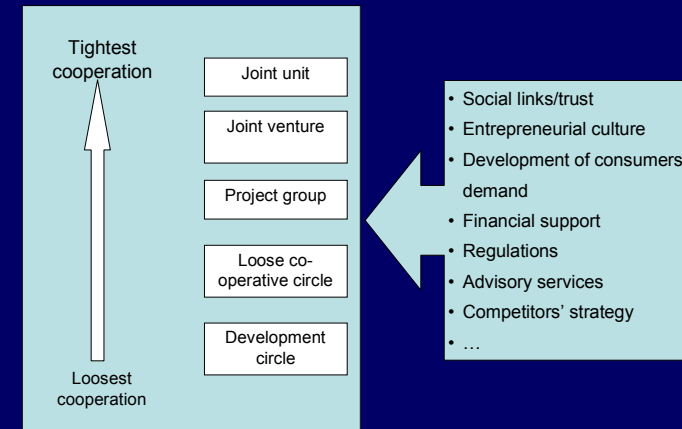
Networks definition (2/2)

- **Strategic alliances:** the pooling of specific resources and skills by the cooperating organizations in order to achieve common goals, as well as goals specific to the individual partners (Varadarajan and Cunningham 1995).
- **Social network:** a “set of nodes” (persons, organizations, ...) linked by a set of social relationships (friendship, transfer of funds, etc.) (Gulati 1998).
- **Business network:** structure of exchange relationships among business actors (firms as well as individuals), structure which emerges, evolves and dissolves over time in a continuous and interactive process (Halinen and Törnroos 1998).

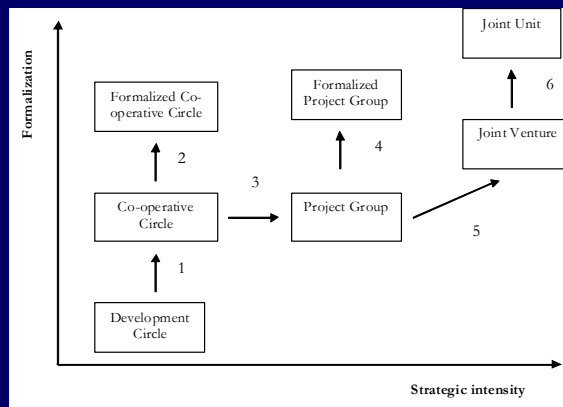
Some close concepts: (industrial) **district, cluster** with an emphasis on geographical proximity

Main types of network

(Source: Varamäki and Vesalainen 2003)



Networks development paths



Possible outcomes from networks

(Source: Human and Provan, 1997)

1. **inter-organizational exchanges:** direct transactions or exchanges among network firms, such as buying and selling, jointly producing and marketing a product and exchanging friendship and information among each other;
2. **organizational credibility:** firms perceive that their external legitimacy can be enhanced through association with the network. Thus, participation can increase the visibility and credibility of member firms;
3. **access to resources:** network participation can play an instrumental role in accessing new markets, new product ideas, and other valued resources for their companies;
4. **financial performances:** economic benefits could occur within a short time after joining the network, but also in a long-term perspective.

3. A field survey: a comparative analysis of 4 networks



- The Boletus mushroom road in Borgotaro
- A local network of nature-based entrepreneurs from Lapland combining their productions in order to create a high quality gift package of non wood and nature-based products
- A national network of nature-based entrepreneurs sharing their experience and improving a cross sectoral co-operation
- The Asiago plateau forest cluster: an adventure park, two hotels, a school for orienteering, a Nordic walking association, an enterprise offering "river sports" and a farm school/museum

Project group

Loose Cooperative Circle

Loose Cooperative Circle

Development Circle

A common frame for the comparative study

Network type
Entrepreneurial input
Network structure
Forest products and/or services involved
Beginning year
Actual number of participating enterprises
Co-ordination
Role of the network
Fundamental links
Public Administration role
Funding
Importance of the public funding on the development of the network
Network's incomes
Sharing out of network's incomes (if any)
Importance of territory
Other aspects
Future network development

Enterprises: 62 (in 2008)

- 15 Agritourisms/ Farm businesses
- 12 Hotels/Guest quarters
- 8 Bed&Breakfasts/Inns/Hostels
- 9 Cheese, sausage and wine growing and producing factories
- 2 Didactical farms
- 3 Museums/Private collections
- 30 Restaurants/Porterhouses
- 26 Typical products sellers

Funding (year 2007):

- 250 €/enterprise during the 1st year; 103 €/enterprise during the following years
- 0.52 €/inhabitants from the member Municipalities
- 2,000 € from the *Comunità Montana*
- Other funding from Leader +

EC Mark of origin

Production areas

Type of permit

Growing rate

<http://www.fungodiborgotaro.com/default.htm>

<http://www.fungodiborgotaro.com/default.htm>

Tesserino Verde

Comunali di Gotra, Buzzò, Albareto, Boschetto, Groppo, Tombeto e Montegropo in Comune di Albareto.

Verranno rilasciati tesserini di colore verde con le seguenti caratteristiche:

- giornaliero** (valido per il giorno indicato nel tesserino):
 - costo: **Euro 15,00** per i non residenti in Comune di Albareto, Euro 6,00 per i residenti nel Comune di Albareto nonché per i proprietari, ed affittuari con contratto almeno annuale, di seconde case nelle frazioni della Comunale;
- semestrale** (valido comunque non oltre il 15.11.2003):
 - costo: **Euro 150,00** per i non residenti nei Comuni di Albareto Euro 67,00 per i residenti nel Comune di Albareto nonché per i proprietari, ed affittuari con contratto almeno annuale, di seconde case nelle frazioni della Comunale

Modalità di accesso: I tesserini saranno vidimati, nel punto di vendita, con il timbro della Comunale di accesso, da personale incaricato dal Consiglio di Amministrazione.

Tale tesserino darà diritto all'accesso ad un'unica Comunale, pur consentendo di percorrere a piedi e di esercitare la raccolta nel territorio di tutte le Comunali facenti parte dell'area B).

In considerazione dell'antica consuetudine di reciprocità fra le Comunali confinanti di S. Vinconzo-Rovinaglia in Comune di Borgotaro e Gotra, Buzzò e Albareto in Comune di Albareto è consentito agli utenti lo sconfinamento:

Per evitare un eccesso di carico giornaliero di cercatori con effetti negativi sulla capacità di rigenerazione dell'ecosistema, viene stabilito un numero massimo giornaliero di persone a cui consentire l'accesso come a seguito specificato:

- Comunale di Gotra e Buzzò n.100
- Comunali di Albareto n.700
- Comunali di Boschetto e Tombeto n.120
- Comunali di Groppo n.100
- Comunali di Montegropo n.200

Giorni e orario di raccolta: martedì, sabato e domenica; la raccolta può essere effettuata a partire da un'ora prima della levata del sole, mentre l'uscita dall'area B) deve avvenire entro e non oltre le ore 15.

Quantitativi: non oltre 3 Kg.

Daily permit: 15 Euro (for 3 kg max)

1. Conclusions

Networks are **not one of the instruments** of SMEs development but **the path** for any type of development. The problem is not to have or not to have networks, but **which kind of networks is most suited** to the local enterprises in a phase of development

Networks are **always dynamic**: network growth can bring problems, conflicts and new risks, also because **outcomes can have an asymmetric distribution** among firms composing the network (Gulati, 1998)

Two components of the most advanced

- A (contractual) coordination of economic activities that provides a stable supply of products and services that is essential for the stability (a market share)
- A mutual trust:
 - ← input = **Social capital**
 - output = not only market products are supplied but also **"relational goods"**

