I. ARTICLES

Giuseppe Calzoni*, Cristina Montesi*, Cristiano Perugini*

TERRITORIAL PARADIGMS OF COMPETITIVENESS IN INTERNATIONAL MARKETS: REGIONAL AND SUB-REGIONAL EXPORT PERFORMANCE OF UMBRIA, ITALY. A LOCAL DEVELOPMENT PERSPECTIVE

The goal of the paper is to investigate the regional and sub-regional competitiveness of Umbria (Nuts II region in Central Italy) on international markets through one of its traditional measures: export performance. The innovative methodological aspect of the research lies in complementing the analysis carried out referring to the regional administrative boundaries (spatial approach) of Umbria through the application of Porter portfolio techniques, with a sub-regional analysis using territorial units (Local Labour Systems) determined according to a functional criterion, able to approximate properly the existing social and economic sub-regional (territorial) differentiation.

The emergence of sub-regional areas of strong competitiveness in international markets otherwise invisible using an aggregated spatial approach, together with the existence of a multiplicity of organizational dimensions at a territorial level, suggest the necessity of joining the different (regional and sub-regional) levels of analysis in order to increase the efficiency and effectiveness of public policy intervention. This suggests that de-centralizing policy design and implementation to Regional Authorities would not be enough if the actual territorial articulation of the area considered is not appropriately taken into account.

Keywords: export performance, local development, local systems

INTRODUCTION

In the present framework of globalization of economic activities, competitiveness is assuming a prominent role both in theoretical terms and in the process of codification of effective policies and entrepreneurial actions. In this debate, among others, many aspects related to innovation, flexibility and technological progress are normally underlined with variable emphasis. For instance, the role of development, innovation, and quality standard policies is often stressed, while the importance of export performance as a competitiveness

* Department of Economics, University of Perugia

indicator is most of the time neglected due to the fact that a rapid growth of exports is not usually sustainable in the longer run (Irfan Ul Haque, 1995, p. 2).

We can however oppose this view considering that from the very beginning of economic theory (A. Smith), both the division of labour and enlargement of markets (hence, opportunities of growth for exports) have been underlined as the two basic engines of economic progress. It is not difficult to observe that technological progress and globalization could be considered the present manifestation of these two development conditions. And as a matter of fact it can be emphasized that growth rates of international trade higher than production dynamics have been one of the distinctive regularities of economic progress from the industrial revolution onwards (Isfan Ul Haque, 1995, p. 3). Consequently, investigating exports as a competitiveness indicator is both opportune and suitable, since in the global markets both technological progress and the quality of products are necessary, but may be not sufficient, requirements for an adequate rate of development if new markets are not continuously accessed and exploited.

The aim of this paper is to contribute to the investigation of the significance of competitiveness both at spatial (Umbria Nuts II region, Italy) and regional level (sub-regional socio-economic local systems), using local firms export performance indicators. The basic theoretical reference behind this research is the peculiar development model of Italy, essentially based on the role of small and medium enterprises (SMEs) often clustered in restricted geographical areas. Their capacities of innovation *via* dense systems of relations (outside the firm but inside the local system) have traditionally allowed the overcoming of some structural disadvantages due to reduced dimension. The Italian experience shows the multiplicity of forms of capitalism and firm competitiveness sources, not necessarily linked to a large dimension; and the prominent role played by external organizational (besides produce and process) innovation capacity (Schumpeter, 1951, p. 66) of local contexts (systems of firms, networks, etc.). In this context research is still young, but the promising possible outcomes in terms of economic, social, cultural and political (that is *human*, in the most complete sense of the word) progress, strongly encourage following the marked way.

After recalling the basic theoretical background about the local/territorial potential determinants of competitiveness, in the first part of the paper the most recent features of region Umbria export is depicted, focusing particularly on the Central and Eastern Europe Countries as the area of destination. In the second part after briefly discussing and describing the proper methodological tools for a local development perspective, the

instructive case of sub-regional Umbria territories is empirically deepened. Some final remarks close the paper.

1. THE LOCAL DIMENSION OF COMPETITIVENESS

As recently underlined by Bronzini (2000) the structural characteristics of the Italian productive system (high incidence of SMEs specializing in traditional industries) have historically represented an important matter of debate among economists. On the one side, those more strictly linked to the mainstream neoclassical theory that considered the two features as sources of weakness, especially in international (competitive) markets, where stronger innovation and diversification capacity (or lower unit costs) are requested and may not be achieved below a certain productive scale. On the other hand (Becattini 2000a, p. 111), without the support of a theory equally widely-accepted, but with an overwhelming evidence of facts (the greater part of Italian exports deriving from SMEs steadily competitive in certain international markets), a new body of theory has been taking place, aware of the potential weaknesses of SMEs, but also of their possible competitive advantages due to the existence of a set of external economies. In other words, escaping the trap of the marginalistic approach where the problem of minimal unit costs is resolved exclusively inside the firm (Becattini 2000b, p.179), the firm becomes an interactive element of a socio-economic system, where productive material and immaterial inputs peculiar and unrepeatable can be drawn up, as the observable outcome of an historical social, cultural, economic, institutional development process. Thus, while large firms grow inside themselves by accumulation processes, SMEs can grow outside (but around) themselves by competitive/cooperative aggregation. And the distinctive features of a territory can potentially assume the role of competitive advantages for the firm belonging to, and which are part of, the territory itself. For instance, as recently recalled by Becattini and Musotti (2002) in the case of local contexts with a strong relationship density (relevantly systemic), as the industrial districts (Becattini, 2000c, pp. 57-78), they can take the shape of external *organizational* economies, favouring the decomposition and re-composition of the productive process inside the system and guaranteeing in the meantime the advantages of specialization and flexibility; of economies of (tacit) *knowledge* and *learning*, able to encourage different processes of innovation, harbingers of competitive advantages; of *concentration* (in the phase of input purchase); of *training*,

not only with reference to labour force specialization, but more generally to the local human and social atmosphere (entrepreneurial attitudes, for example): of *transaction*, that is relative to the fluidity of circulation of information affecting the cost of use of the market; of *adaptation to reality*, referring to the capacity of the actors to take the responsibility of belonging to the district and reproducing its features in the general interest.

Of course, leaving the instructive, but peculiar, case of the industrial district, the existence of certain types of economies disappear or fade and new forms emerge, according to the human, social and institutional features of the territory and of the local system. Which, case by case, match other more traditional sources of competitive advantage internal to the firm (scale economies), or referred to conditions historically underlined by the theories of industrial localization: low cost of productive factors due to relative availability; proximity to sale markets (Von Thunen), qualitative and quantitative features of demand of a certain area (*central localities* of Christaller, Losch, Isard); low transportation costs for raw materials and finished products (Weber); up to the combination of all these factors with others of historical nature, synthesized by Krugman (1991) in the centre-periphery model, but recurring to the role of external Marshallian economies (in particular related to the labour market). The role of agglomeration economies in generating competitive advantages has been recently underlined with reference to the strong spatial concentration of some important industries (wine, software, carpets), by Rosenthal and Strange (2003).

The Italian economic history (especially after the second world war) is a mosaic of different development patterns often based on peculiar attributes of the contexts where production takes place, able to be translated into competitive advantages spendable also at international level, gambling on the capacity of differentiation (even personalization) of products able to fulfil clusters of needs increasingly diversified and articulated. This means that if the effective determinants of the competitive dimension of Italian exports are to be investigated, the analysis should take into due account an adequate territorial dimension, able at least to distinguish the belonging of different actors to different types of socio-economic contexts.

2. THE DYNAMICS OF UMBRIA'S FOREIGN TRADE AND EXPORT GEOGRAPHIC DESTINATION IN 2001

The recent increase (1.4%) of Umbria exports value in the biennium 2000-2001 confirms the positive trend that has been continuously characterizing the

foreign trade of the area during the period 1997-2001. Together with the increase of exports at current prices, exports in real value increased by 5% from 2000 to 2001. In addition to the positive dynamics of export (1.4%), imports recorded a more than compensating decrease (-2.9%), so that the trade credit balance of Umbria improved by 14%. The reduction of imports also induced an improvement (from 134% in 2000 to 140% in 2001) of the export capacity to compensate the imports value. The main trends of Umbria exports in the biennium 2000–2001, with regards to their geographic orientation, can be examined considering four areas of destination: Europe, the Mediterranean area, the Arab countries, the countries outside Europe.

Table 1

The geographic destination of Umbria's export in 2001 (nominal value)

Areas	% change 2000/2001	% share 2000	% share 2001
Europe			
EU	-0.1	58	57
EU accession	26.3	3.8	4.7
Eastern Europe*	17.1	9	10
EFTA	-10	4.1	3.7
Mediterranean			
Maghreb*	15.3	1.3	1.4
Mediterranean countries*	-3.3	4.4	4.2
Arab countries			
Arab countries*	-7.1	4.1	3.8
OPEC	-26.6	2.6	1.9
Outside Europe			
OECD	-1.1	77	75
NAFTA	-8.2	17.7	16
MERCOSUR	-13.6	1	0.8
APEC	1.2	22	22
NIC'S	45.8	1.4	2
ASEAN	99.8	0.5	0.9
Commercial Union of Andes	6.5	0.2	0.3

*Note: The *Eastern Europe countries* include: Romania, Poland, Former Yugoslavia (Serbia/Montenegro, Slovenia, Croatia, Bosnia, Macedonia), Russia and the other independent Republics of the former USSR, the Czech and Slovak Republic, Hungary, Bulgaria, Romania. *Maghreb*: Tunisia, Algeria, Morocco, Egypt, Libya. *Mediterranean countries*: (in addition to Maghreb countries) Turkey, Jordan, Israel, Lebanon, Malta, Cyprus, Syria, Palestine. *Arab countries*: (in addition to Maghreb countries) Jordan, Lebanon, Syria, Palestine, the U.A.E, Saudi Arabia, Kuwait, Qatar, Iran, Iraq, Oman, Bahrain, Yemen.

Source: Istat (Italian Central Institute of Statistics), Coeweb on line Statistics

From table 1 we may notice a variegated trend of "neighbours export" (an increase of Umbria's commercial flows towards Maghreb, but a reduction towards OPEC, Arab and Mediterranean countries) and also of "proximity export" (a decrease towards European Union and EFTA, an enlargement

towards the EU accession and the Eastern Europe countries). To this articulate trend corresponds a similar dynamics of Umbria's intercontinental export. The "long-distance" trade is in fact characterized by a declining regional export value towards North America (NAFTA) and South America (MERCOSUR) excluding the Commercial Union of the Andes, but at the same time by an export increase towards NIC, ASEAN and APEC countries. Umbria's commercial loss towards the OECD area can be ascribed mainly to the decrease of Canada and EFTA, in addition to that of the European Union, Australia, the United States and New Zealand.

More particularly, as regards Europe, we observe:

• a weak reduction of exports towards the EU (-0.1%) which, anyway, still remains the most important market for Umbria's products with a share of 57% on the total regional export in 2001 (58% in 2000);

• a remarkable expansion of exports (+17.1%) towards Eastern European countries, whose incidence rises from 9% to 10%;

• an increasing commercial integration with the EU accession countries (+26.3%), whose incidence rises from 3.8% to 4,7%;

• a small reduction of exports towards the remaining continental Europe, EFTA (-10%), whose incidence falls from 4.1% to 3.7%.

3. UMBRIA'S EXPORTS
TOWARDS EASTERN EUROPEAN COUNTRIES

The true commercial "revelation" of the biennium 2000–2001 were Eastern European countries who, unlike EU and EFTA, considerably increased (+67 billions of Italian Lire equal to 32 millions of euro) their purchases from Umbria. Umbria's exports towards these countries grew from 393 to 460 milliards of Italian lire (from 202 to 237 millions of euro), enlarging its share on total exports from 9% to 10% (in 1985 it was only 6%). All the Eastern European countries contributed, except Albania (showing a reduction of 3.7%), to the Umbrian export increase of 17% towards the area.

The most dynamic countries have been, in order of importance, Hungary (+94.8%), former Yugoslavia (+32.5%) mainly for the contribution of Slovenia (+53.8%) and Serbia (+22.2%), Poland (+18.8%), Bulgaria (+11.0%). At lower levels were the contribution of Romania (+7.8%); Russia and the other independent Republics of the former Soviet Union (+4.0%) among which Russia's reduction (-18.8%) has been more than counter-balanced by the increase of the Ukraine (+66.2%); and former Czechoslovakia (+1.4%), mostly

because of the performance of the Slovak Republic (+55.0%) rather than the Czech Republic (-23,6%).

In 2001 Umbria's most important market within Eastern Europe was Romania, receiving 28% of regional exports of the area, followed by Poland (22%), former Yugoslavia (18.4%), Russia and the other independent Republics of the former Soviet Union (12.3%), former Czechoslovakia (8.1%), Hungary (7.7%), Bulgaria (2.7%), Albania (0.8%).

In 2001 Romania's share of the total of Umbria's export was 2.8%, Poland's 2.2%, former Yugoslavia's 1.9% (Serbia 0.8% and Slovenia 0.4%), Russia and the other independent Republics of the former Soviet Union 1.2%, Former Czechoslovakia's 0.8% (equally shared between Czech and the Slovak Republic), Hungary's 0.8%, Bulgaria's 0.3%, Albania's 0.1%.

The group of EU accession countries includes many Eastern European countries already examined (Poland, Hungary, Czech Republic, Slovak Republic, Slovenia), but also Malta and Cyprus, in addition to the Baltic republics (Estonia, Lithuania, Latvia). Consistently with the other Eastern European countries, the Baltic republics have increased, all together, their purchases from Umbria from 3 to 5 thousand million of Italian liras (+101%), mainly through Estonia (+602%), Lithuania (+79.5%), Latvia (+36.7%); but they have only absorbed 0.2% of Umbria's exports in 2001.

4. FOREIGN TRADE STRUCTURE OF UMBRIA TOWARDS EASTERN EUROPEAN COUNTRIES IN 2001

Umbria's foreign trade seems, to some extent, to respond to the *"theory of comparative advantages"*. In fact Umbria imports, from some Eastern European countries, natural resources or raw materials (primary chemical products from Serbia and from the Czech Republic, non-ferrous base metals from Russia, peat from Latvia and Lithuania) in exchange for its fashion products (leather in the case of Serbia, shoes and clothes in the case of Russia), machines and equipments (Latvia, the Czech Republic and Lithuania), and wood products (Russia).

For other Eastern European countries (Poland, Slovenia, Albania, the Slovak Republic) an "inter-industry trade" takes place between traditional industries (textiles, food, agriculture) or more technological sectors (machines and equipments, chemicals, metallurgical and metal mechanical industry).

For some of the Eastern European countries (Romania, Serbia, Hungary, Bulgaria, Ukraine), the share of "intra-industry trade" is a very relevant portion

of the total amount of commercial exchanges for some specific products. This "horizontal trade" indirectly proves the considerable experiences of productive de-localization of Umbria's firms in these countries, as evidence of an increasing productive (and not only commercial) integration. As regards Romania, the exchange between import-export of iron and steel products accounts, in the global trade of Umbria, with a positive sign, for a share of 21% (while knitted goods 29%, clothes 26%, shoes 21%, but all with a negative sign). The same happens with Serbia for shoes with a negative share of 24%; with Hungary for iron and steel products with a positive share of 26%; with Ukraine for clothes (+) 12%; and Bulgaria for rubber products (-) 30% and shoes (-) 12%.

5. UMBRIA'S PROCESS OF INTERNATIONALIZATION TOWARDS EASTERN EUROPEAN COUNTRIES: STRATEGIES AND POTENTIAL

Some strategic suggestions can be proposed to the private or public sector concerning the future prospects of Umbria's process of internationalization towards the Eastern European countries. This can be done through the "position/evolution matrix" of the Eastern European countries receivers of Umbria's exports, in order to deduce the competitive position of each country in the regional foreign trade framework in 2001. This matrix is an innovative application of the "rate of growth/share of market" matrix conceived by M. Porter as a simple technique to be utilized (as far as all the different business areas of a multibusiness firm have been brought back to a single portfolio) to control the different activities and to decide the alternative destination of the financial resources (Porter 1980).

This analysis can support, with sufficient objectivity, both firms decisions about different processes of internationalization to be engaged, and policy makers choices in financing promotional measures or supporting private (or public/private) initiatives.

This matrix consists of two elements: a per-cent growth of Umbria's exports to each country from 2000 to 2001 (measuring the market developments of these nations) and a per-cent share of every country in Umbria's total export in 2001 (measuring their market share).

Fixing, with an unavoidable level of arbitrariness, the thresholds of high, medium and low growth, and high, medium and low market share (we assume that *low* incidence or low growth is up to 5%. *Medium* incidence or medium

growth is between 5% and 10%. *High* incidence or high growth is above 10%). Thus, we can easily obtain a matrix, which can be divided into nine sub-squares (Figure 1).

% share of every country on Umbria's total export in 2001

	HIGH	MEDIUM	LOW
HIGH			BULGARIA HUNGARY SLOVENIA SERBIA SLOVAK R. POLAND UKRAINE BALTIC R.
MEDIUM			ROMANIA
LOW OR NEGATIVE			CZECH R. ALBANIA RUSSIA

% growth of Umbria's export towards each country in 2000/01

KEY

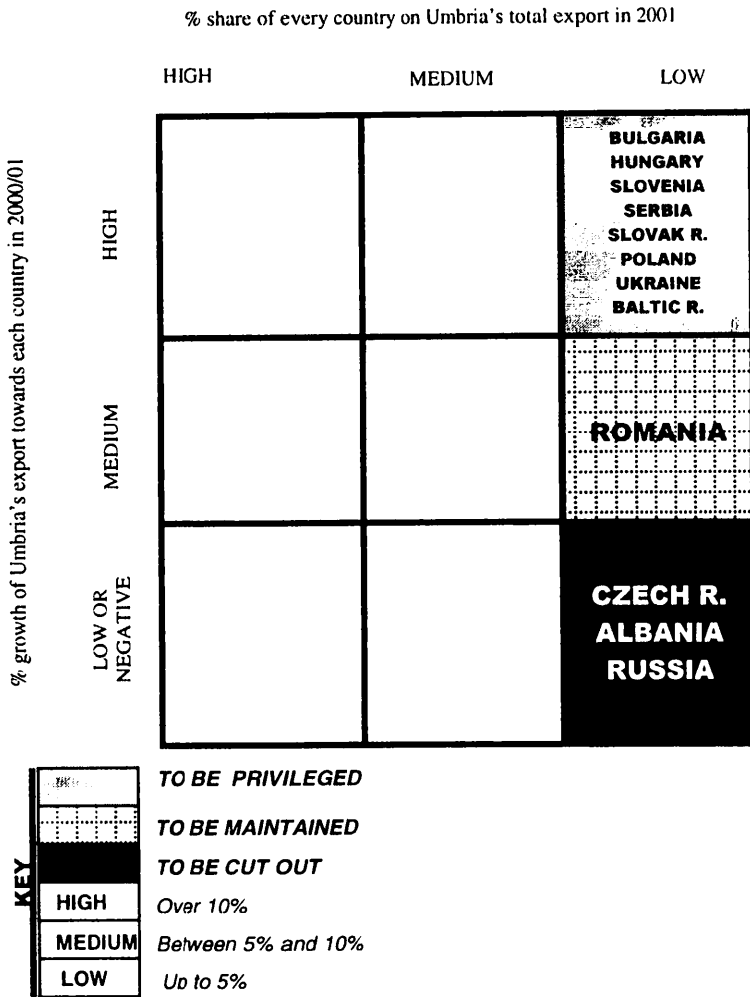|	
	TO BE PRIVILEGED
	TO BE MAINTAINED
	TO BE CUT OUT
HIGH	Over 10%
MEDIUM	Between 5% and 10%
LOW	Up to 5%

Fig. 1 Position/evolution matrix of Eastern European countries receivers of Umbria's exports in 2001

Generally speaking, all the countries with a low market share and low or negative growth should be discouraged from any private or public strategies of internationalization. On the contrary, all the countries with a high market share, even if they show low or negative growth, should be maintained. Similarly, those with a medium market share, but with low or negative growth; and those with a low market share, but with medium growth, should be maintained. Finally, all the countries with a low market share, but high growth, those with high market share and high growth, and those with medium market share and medium growth, should be privileged.

According to these criteria, in the case of Eastern European countries, one can deduce that, from a commercial point of view, it would be necessary (Figure 1):

• to privilege Hungary, Poland, Bulgaria, Serbia, Slovenia, Slovak Republic, Ukraine, the Baltic republics since they are characterized by high growth rates of Umbria's exports, but low incidence on Umbria's total exports;

• to maintain Romania, because it is a country characterized by a medium growth rate of Umbria's export, but low incidence on Umbria's total exports;

• to cut out Russia, Albania and Czech Republic since Umbria's exports towards them are decreasing, and represent a small share of the total.

If we complete this analysis considering the macroeconomic estimates and projections concerning the real GDP, the real internal demand in 2003 (OECD 2002) and reckoning with the rating of Eastern European countries according to their solvency capacity (Moody's and Standard and Poor's, 2003), we can confirm all the strategic suggestions supplied by the matrix; the only exception being the Czech Republic, which could be sustained, rather than left out, showing a good rate of growth of real GDP and real internal demand and a strong reliability of payment.

We can enrich this analysis with a rating of Eastern European countries according to the pre-conditions of growth and to the effective engine of growth (Warner 2002; Cornelius-Warner 2003). According to these indicators, the countries seeming more inclined to foreign trade with Umbria are Hungary, Slovenia, the Slovak Republic, the Czech Republic, since they are already open to international trade and characterized by a good amount of export per inhabitant. Different forms of productive de-localization seem more favoured in Hungary (because of

the good conditions for firms start-up, the good quality of public administration, lack of corruption, good educational system, good rule of law, presence of infrastructures, low taxes), but also in Poland (good conditions for firms start-up, good educational system, good rule of law), in Slovenia (good educational system, good rule of law, good quality of public administration, lack of corruption, low red carpet in the sense that senior management spends little time dealing with government officials, and those administrative regulations are not burdensome), in the Slovak Republic (good quality of public administration, infrastructures endowment, good educational system), and in the Czech Republic (good educational system, low red carpet, infrastructures endowment).

If we add to this economic and geographic view, a specific analysis about the growth and importance of Umbria's export-oriented manufacturing industries with regard to the same countries, we can attain to a matrix of the industries and markets of Eastern Europe with low commercial power. This matrix includes the countries that are to be maintained together with the industries with a medium or high incidence on Umbria's export towards these same countries in 2001; but which have revealed themselves to be decreasing from 2000 to 2001. Starting from these criteria, this matrix will contain Romania with iron and steel products and leather, in addition to the Czech Republic with domestic equipments and plastic materials.

The matrix of the industries and markets of Eastern Europe with a medium commercial power includes the countries which are to be maintained together with the industries which have a medium or high share of Umbria's exports towards these same countries in 2001, but which have shown low growth from 2000 to 2001. This matrix will include the Czech Republic with vegetable and animal oil.

The matrix of the industries and markets of Eastern Europe with high commercial power includes the countries to be advantaged together with the industries which have a medium or high share of Umbria's export towards these same countries in 2001 and which gained a low or medium or high growth from 2000 to 2001. So in this matrix will be Hungary with iron and steel products, other iron products, agricultural products, general machines, domestic equipments; Poland with clothes, textiles, artificial fibres, domestic equipment, special machines, vegetable and animal oils, pipes; the Slovak Republic with electronic engines, other metal products, plastic materials; Slovenia with iron and steel products, clothes, agricultural products.

6. TOOLS FOR A TERRITORIAL APPROACH:
THE LOCAL LABOUR SYSTEM

The need to identify an adequate territorial unit of reference, consistent with the aims of giving due priority to the effective articulation of development and of overcoming the traditional spatial partition on the basis of administrative units, has stimulated scholars to attempt alternative functional mapping.

From this point of view, the Local Labour Systems (LLSs) identified by Istat (1997) in Italy, have extensively been tested and accepted by a wide literature as the best available proxy of the territorial articulation of Italian economy and society. The LLS, belonging to the wider category of the *travel to work areas* (TTWA) is defined as the area where *"the majority of resident population can find (or change) a job without changing its residence; and where the employers can recruit the majority of workers"*, generating a complex network of daily *house to work* movements. So the LLS is composed of two or more contiguous communes (the smallest administrative units in Italy) where a relative high density of relationships among socio-economic actors do exist, approximated by the commuting of residents, under the assumption that labour plays a central role in human life and is also able to structure other relevant and meaningful social, economic, cultural activities of people. The LLS can thus be considered as an area of relative institutional and socio-economic homogeneity, with a considerable degree of compactness/cohesion, and liable to draw the boundaries of a local society (and a territory) as the outcome of an evolving process of environmental, physical, social, cultural and economic interacting forces (Perugini-Musotti 2001). The map of LLSs currently available refers to data collected in the 1991 census of population, since the new data elaboration (2001) has not been published. The use of the 1991 LLSs does not represent a decisive limit for the following empirical analysis: firstly because the export data used refers to 1996; secondly because a map of sub-regional territories can be considered relatively stable over time, unless dramatic change (social, economic, infrastructural) do occur.

The case study considered in this paper, Umbria, represents (Grohmann 1989) a very instructive example of an administrative unit historically interested by a multiplicity of local development paths.

According to the 1991 census data, Umbria is articulated in 16 LLSs entirely falling inside its administrative space (eight communes on the boundaries with Tuscany and Latium belong to extra-regional LLSs); properly depicting the complexity of existing local development trajectories. Rural Alta Valnerina, almost exclusively projected to exploit the economic potentials of its gastronomic, cultural and environmental amenities; the Alta Valle del Tevere, a frontier of the light industrialization model very close to the model of industrial districts; Media Valle del Tevere, composed of sub-regional components (the area attracted by the most important urban centre of the region, Perugia; a sub-system specialised in artistic pottery production, Deruta; and another local system of furniture products with district features, Marsciano); the touristic territories of Trasimeno Lake, the deposits of traditional agro-industrial products of Spoleto and Fabro (olive oil), Orvieto (wine), able to capture important flows of tourists attracted by the art towns of Umbria; and finally, but not exhaustively, the area of traditional heavy industry of Terni, now undertaking important evolutions in a post-Fordist direction (Montesi, 2002).

7. TERRITORIAL EXPORT PERFORMANCE OF UMBRIA

The use of a unit of analysis of a functional nature as LLS allows including in the analysis the complex set of features of a *place*, even though not considering them explicitly. In other words the choice of this distance of observation of economic phenomena corresponds to realize and identify the socio-economic boundaries of territorial differences able to influence behaviours and performances.

In the following analysis, and with reference to export competitiveness of territories of the region Umbria, the target is to draw an essentially descriptive picture of the structural characteristics underlying this competitive dimension. Even though no causal effects are estimated through the use of regression analysis, the outcomes allow hypothesizing the existence, even inside a small region, of a very diversified set of organizational structures, inside or around the firm, behind export performance.

The solidity of LLSs as units of analysis is witnessed by a relatively large amount of data produced and referred to this territorial level. Among the

latest publications, Istat (2002) has provided data concerning export performance in the year 1996, combining information available in different statistical archives (COE-external trade and ASIA-firms operating in industry and services), reaching a sufficient degree of statistical significance and reliability, being able to attribute to LLSs 92.5% of domestic exports of manufactured and processed products. The data used in this section of the paper refer to processed and manufactured products (classified in 2 letter sub-sections of Ateco 91 classification, corresponding to the NACE Rev.1 subsections of the manufacturing division D) exported by firms of the 16 LLSs of Umbria region in 1996. The building of export indicators at local levels significantly contributes to shed light on the local competitiveness determinants of certain local systems compared to the whole regional performance, traditionally considered relatively weak.

Indeed in 1996, Umbria contributed to Italian exports less than one per cent (0.89%), and showed a *per worker* exported value (in liras) far below the Italian average (0.67, assuming as 1 the average Italian level). The region does not emerge significantly above the Italian average if sector specialization is considered (Source: Istat, Coeweb, on-line statistics on external trade). On a sectoral level Umbrian exports in 1996 are largely specialized in chemical products and synthetic and artificial fibres processing (26% of the total), textile and clothing (18%) and rubber and plastic processing (16%). The food and beverage and the mechanic products industries respectively cover a significant 9% and 7%. But neither the subdivision in sections of the manufacturing industry is able to raise the performance of the regional export, systematically below the Italian average, except for wood and wood products and for chemical products and synthetic and artificial fibres. Local entrepreneurial organizations tend to justify the weak regional performance especially in some sectors (i.e. textile and textile products and mechanics) explaining that a large share of Umbrian manufacturing firms do not operate directly for the final market, but rather as sub-contractors of extra-regional larger firms, well competitive on international level. This feature would consequently hide and underestimate the local competitive positions.

Apart from this kind of caveats, does the evidence of data mean a real weakness of Umbria's competitive position on international markets, or an incomplete/improper perspective of observation? The following table starts to answer this question.

Table 2

LLSs export performance* in the manufacturing sub-sections (1996)

	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	Total
Assisi	0.41	0.89	2.53	0.06	0.40	0.00	0.20	0.54	0.03	0.10	1.26	0.03	0.39	0.17	0.48
Cascia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C. del Lago	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.10	0.00	0.00	0.17
C.Castello	0.12	0.44	0.36	0.76	0.19	0.00	11.88	0.07	0.46	0.02	1.07	0.26	0.23	0.02	0.40
Foligno	0.07	0.26	0.56	0.02	0.34	0.00	0.01	0.02	0.45	0.04	0.91	0.18	0.05	0.77	0.33
G. Tadino	0.02	0.00	0.04	0.54	0.07	0.00	0.06	0.02	1.35	1.46	1.37	0.02	0.00	0.71	1.39
Gubbio	0.04	0.03	0.00	0.51	0.06	0.00	0.04	0.02	0.23	0.13	0.22	0.08	1.17	0.21	0.09
Marsciano	0.00	0.55	0.25	0.61	0.00	0.00	0.00	0.04	0.12	0.06	0.07	0.01	0.00	0.89	0.25
Norcia	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Perugia	0.82	0.71	1.85	3.92	1.69	0.00	1.78	0.35	0.46	0.40	0.63	0.27	1.93	0.11	0.61
Spoleto	6.08	0.31	0.19	0.00	0.06	0.00	14.10	0.49	0.10	0.12	0.31	0.20	0.02	0.05	0.75
Todi	0.32	0.43	0.00	0.68	0.02	0.00	0.01	0.01	0.01	0.96	0.15	1.50	0.00	0.01	0.35
Umbertide	0.15	2.34	0.00	0.07	0.01	0.00	0.00	0.68	0.12	0.82	0.84	2.08	0.70	0.03	1.07
Fabro	5.20	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99
Orvieto	1.01	0.28	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.04	0.75	2.08	0.00	0.00	0.48
Terni	0.81	1.27	0.31	0.09	0.12	0.06	0.56	4.72	0.49	3.10	0.51	2.13	13.18	0.74	1.29
Umbria	0.70	0.65	0.83	1.54	0.45	0.01	0.69	0.91	0.50	1.71	0.63	0.56	0.24	0.29	0.62
Perugia	0.65	0.61	0.80	1.68	0.50	0.01	0.72	0.26	0.51	0.42	0.64	0.42	0.20	0.22	0.47
Terni	0.90	0.89	1.33	0.79	0.09	0.00	0.68	4.66	0.42	2.92	0.60	0.91	12.56	0.57	1.11

* Export value (in liras) per employed in the LLSs (or region) / Export value (in liras) per employed Italy

DA – Food products, beverages and tobacco
DB – Textile and textile products
DC – Leather and leather products
DD – Wood and wood products
DE – Pulp, paper and paper products; publ. and printing
DF – Coke, refined petroleum, nuclear fuel
DG – Chemicals, chem. products and man-made fibres
DH – Rubber and plastic products
DI – Other non-metallic mineral products
DJ – Basic metals and fabricated metal products
DK – Machinery and equipment n.e.c.
DL – Electrical and optical equipment
DM – Transport equipment
DN – Manufacturing n.e.c.

Source: Istat, Coeweb, on-line statistics on external trade and Istat (2002)

All LLSs except Norcia and Cascia (the mountainous areas of the region) perform better than average at least in one manufacturing specialization. A significant number of LLSs show per labour unit exports far higher than the national average in different sectors: five out of 15 in the food and beverage and in electric and optical equipment processing industries; four in the metal products and in mechanic sector; three in textile and textile products, chemicals and fibres, and transport equipment. Terni and Perugia LLSs perform above average respectively in 7 and 6 sectors out of 14, Umbertide in 4, Gualdo Tadino and Assisi in 3.

Apart from the position of the two more urban LLSs (Perugia e Terni) representing also the historical dualism of development patterns in Umbria (the first one centred on the traditional *made in Italy* products (Bracalente, 1986), and the second still relying on the heavy industry traditional sectors, but trying to re-emerge, in a post-Fordist sense, from the crises of the public enterprises era (Montesi, 2002)), particularly interesting appear the conditions of the five LLSs (Assisi, Città di Castello, Umbertide, Marsciano and Gualdo Tadino) indicated, from the structural point of view, compatible with the model of the industrial district (ID) (MAP, 2002).

This evidence, together with the outcomes of consistent literature on the possible "district effects" on international competitiveness (Bronzini 2000), suggested considering some basic indicator of the structural organization of the manufacturing sectors at the chosen territorial level, enlarging the basic theoretical reference from the industrial districts to the more general "local production system" (LPS), of which the ID is one of the possible specification. A LPS can be defined as a set of productive structures specialized in the production of a limited group of goods, localized in a relatively restricted area, connected with each other for commercial or non-commercial reasons, and sharing a common endowment of knowledge and institutional framework (Bellandi, 1994). Although LPS can extend itself across different locals systems (followed by LLSs), this unit of analysis can be considered suitable to observe possible LPS effects on economic performances. In order to consider the strength and some of the basic structural features of LPSs possibly underlying export performance, the following indicators were proposed.

Table 3

LLSs specialization, diffusion and small size firms indicators 1996

Specialization	Diffusion	Small size firm incidence
$$\dfrac{\dfrac{emp_{i,j}}{emp_{i,TOT}}}{\dfrac{emp_{I,j}}{emp_{I,TOT}}}$$	$$\dfrac{\dfrac{emp_{i,j}}{res_i}}{\dfrac{emp_{I,j}}{res_I}}$$	$$\dfrac{\dfrac{emp{<}50_{i,j}}{emp_{i,j}}}{\dfrac{emp{<}50_{I,j}}{emp_{I,j}}}$$

Where:
- *emp*   – the number of employees;
- *emp<50*   – the number of employees in companies with less than 50 employees;
- *res*   – the number of residents;
- *i*   – the LLS;
- *j*   – the manufacturing sub-sector;
- *TOT*   – the total number of employees in the manufacturing sector as a whole;
- *I*   – the value of the variable for Italy as a whole.

While the first two indicators provide information on the potential existence of those agglomeration economies based on sector specialization and the large importance of the sector for the given territorial level, the third one sheds light on the size structure of the local firm cluster, in order both to mark out LPSs of small and medium enterprises, and to consider (if the indicator is low) the possible economies of scale effects (Bronzini, 2000; Crestanello e Menghinello, 2001), related to the prevailing presence of medium and large firms, on export performance. The threshold of 50 employees, generally corresponding to the small enterprise size, is justified by the reduced average size of manufacturing firms in Umbria, and is thus able to guarantee a proper degree of size structure diversification among territories, otherwise (threshold to 250 employees) not visible.

Pooling the cross sectional data of the territorial export and excluding, according to the Istat (2002) approach, the non meaningful export levels (lower than 0.01% of national export value of the sub-sector), 23 local dimension of significant competitiveness (standardized export performance higher 1.2) and 11 of average levels (between 0.8 and 1.2), emerge.

Table 4

LLSs *significantly* competitive and relative structural indicators (1996)

LLS	Manufacturing sub-section	Export Performance	Export share	Diffusion	Specialization	SE incidence
Assisi	DC	2.53	0.01	0.03	0.02	1.33
Assisi	DK	1.26	0.11	0.93	0.61	1.44
Città di Castello	DG	11.88	0.04	0.05	0.03	3.97
Fabro	DA	5.20	0.12	1.71	3.46	1.53
Gualdo Tadino	DJ	1.46	0.03	0.40	0.26	1.44
Gualdo Tadino	DK	1.37	0.35	5.47	3.57	0.25
Gualdo Tadino	DI	1.35	0.54	8.55	5.57	0.87
Orvieto	DL	2.08	0.09	0.67	1.17	0.49
Perugia	DD	3.92	1.83	1.34	1.42	1.00
Perugia	DM	1.93	0.06	0.10	0.10	6.49
Perugia	DC	1.85	0.43	0.66	0.70	0.81
Perugia	DG	1.78	0.11	0.18	0.19	3.97
Perugia	DE	1.69	0.63	1.06	1.12	1.21
Spoleto	DG	14.10	0.02	0.02	0.03	3.97
Spoleto	DA	6.08	0.55	1.21	1.74	1.24
Terni	DM	13.18	0.02	0.01	0.01	6.49
Terni	DH	4.72	0.50	0.35	0.37	1.76
Terni	DJ	3.10	2.41	2.63	2.76	0.39
Terni	DL	2.13	0.28	0.45	0.47	1.53
Terni	DB	1.27	0.24	0.63	0.66	1.04
Todi	DL	1.50	0.04	0.53	0.73	2.04
Umbertide	DB	2.34	0.29	3.76	2.35	0.96
Umbertide	DL	2.08	0.03	0.46	0.29	0.53

Source: Our elaboration of Istat 2002 and Istat 1996 of intermediate census of industry and services

Using the pooled data, no relevant correlation emerges, in a sense surprisingly, between export performance and indicators of industry diffusion, specialization and small enterprises (SE) presence, suggesting that not a univocal structural competitive dimension across sectors and territories in one sense or the other (large or small prevalent dimension of the firms, agglomeration economies or diseconomies, specialization/de-specialization of the local system) exists or prevails. The outcome is confirmed considering the LLSs with average or significant export performance. Their specialization, diffusion and SE average levels do not appear to be significantly different from the group of less competitive LLS/sectors combinations.

Table 5

LLSs *on average* competitive and relative structural indicators (year 1996)

LLS	Manufacturing sub-section	Export Performance	Export share	Diffusion	Specialization	SE incidence
Cast. del Lago	DL	1.10	0.05	1.03	1.24	0.37
Città di Castello	DK	1.07	0.11	1.50	0.90	1.29
Orvieto	DA	1.01	0.09	1.36	2.37	1.53
Todi	DJ	0.96	0.04	0.83	1.15	1.12
Foligno	DK	0.91	0.08	0.65	0.80	0.65
Marsciano	DN	0.89	0.06	1.71	1.43	0.75
Assisi	DB	0.89	0.26	3.14	2.05	1.3
Umbertide	DK	0.84	0.04	1.28	0.80	1.53
Umbertide	DJ	0.82	0.07	2.64	1.65	0.75
Perugia	DA	0.82	0.64	2.26	2.39	0.55
Terni	DA	0.81	0.25	1.04	1.09	1.12

Source: Istat 2002 and Istat 1996 (intermediate census), own calculations

As a matter of fact, the structural characteristics of the sub-sectors of the manufacturing industry are significantly different, and likely to influence the competitive trajectories also at a territorial level. The distinction of the pooled data in two main groups of the *heavy industry* (DF, DG, DH, DM) and of the other one of *light industries* (DB, DC, DD, DI), food, beverage and tobacco (DA), mechanics (DK, DL, DJ), paper, paper products, publishing and printing (DE), already brings significant evidence of competitiveness diversity.

Among the LLSs performing on/above average in the heavy industry, specialization and diffusion are far below the Italian levels (0.12).

Table 6

Specialization and diffusion indexes of LLSs competitive in heavy industry (year 1996)

LLS	Manufacturing sub-section	Export Performance	Export share	Diffusion	Specialization	SE incidence
Città di Castello	DG	11.88	0.04	0.05	0.03	3.97
Perugia	DM	1.93	0.06	0.10	0.10	6.49
Perugia	DG	1.78	0.11	0.18	0.19	3.97
Spoleto	DG	14.10	0.02	0.02	0.03	3.97
Terni	DM	13.18	0.02	0.01	0.01	6.49
Terni	DH	4.72	0.50	0.35	0.37	1.76
Mean				*0.12*	*0.12*	*4.44*

Source: Istat 2002 and Istat 1996 (intermediate census), own calculations

In the second group, although no significant correlation still exists between competitiveness and structural indicators, in 18 cases out of 29 above average levels of competitiveness are recorded, and the group mean reaches 1.71 for diffusion and 1.53 for specialization.

This evidence suggested to deepen the analysis in this direction. In order to synthesize the available information, an application of multivariate statistics (Fabbris, 1997), the cluster analysis, was implemented (Rizzi 1995; Bolasco 1999). As well known, this tool, of an essentially descriptive nature, allows the classification of the n observed units in m ($< n$) clusters, maximizing homogeneity inside the groups and heterogeneity among them, with respect to the variables used.

The database matrix was built considering the 34 observations of pooled LLSs with a significant or average export performance (tables 4 and 5), and the three structural variables (specialization, diffusion, SE incidence), standardised on the national average. Considering the features of the outcomes obtainable with the cluster analysis technique, especially in terms of their stability (Fabbris, pp. 301–302), and considering the options available in the SPSS package, the statistical implementation has been organized in two subsequent steps. In the first place, through the use of the Ward's hierarchic method a first satisfactory repartition (dendrogram inspection) of the observed units has been identified in 4 groups. Secondly, in order to test the outcome stability, this grouping has been optimized through a new cluster analysis, with the k-means non-hierarchic method, asking for a repartition in 4 groups with centres coincident with those obtained from the previous analysis (Ward's method). The procedure supplied a classification largely coincident (except for two observation moving to the most similar group) with the previous one, which could thus be considered sufficiently stable.

Three of the four clusters obtained (table 7) show clear characterization with reference to the variables considered; the fourth group (the number 2 in the table) is instead made up of those two units not emerging as significantly different. Evidently, distinctive structural features at the basis of their competitive option must be found elsewhere. Although this cluster is the largest, the analysis carried out proves useful as far as it can describe the other three classes of competitive units with relatively homogeneous structural characteristics of the manufacturing sub-sectors.

Table 7

Outcomes of the cluster analysis

LLSs	Manufacturing sub-section	Export Performance	Diffusion	Specialization	SE incidence
			Cluster 1		
Assisi	DB	0.89	3.14	2.05	1.30
Fabro	DA	5.2	1.71	3.46	1.53
Orvieto	DA	1.01	1.36	2.37	1.53
Perugia	DA	0.82	2.26	2.39	0.55
Terni	DJ	3.1	2.63	2.76	0.39
Umbertide	DB	2.34	3.76	2.35	0.96
Umbertide	DJ	0.82	2.64	1.65	0.75
Cluster 1 Mean		*2.06*	*2.5*	*2.43*	*1.00*
			Cluster 2		
Assisi	DC	2.53	0.03	0.02	1.33
Assisi	DK	1.26	0.93	0.61	1.44
Città di Castello	DK	1.07	1.5	0.9	1.29
Cast. del Lago	DL	1.1	1.03	1.24	0.37
Foligno	DK	0.91	0.65	0.8	0.65
Gualdo Tadino	DJ	1.46	0.4	0.26	1.44
Marsciano	DN	0.89	1.71	1.43	0.75
Orvieto	DL	2.08	0.67	1.17	0.49
Perugia	DC	1.85	0.66	0.7	0.81
Perugia	DD	3.92	1.34	1.42	1.00
Perugia	DE	1.69	1.06	1.12	1.21
Spoleto	DA	6.08	1.21	1.74	1.24
Todi	DJ	0.96	0.83	1.15	1.12
Todi	DL	1.5	0.53	0.73	2.04
Terni	DA	0.81	1.04	1.09	1.12
Terni	DB	1.27	0.63	0.66	1.04
Terni	DH	4.72	0.35	0.37	1.76
Terni	DL	2.13	0.45	0.47	1.53
Umbertide	DK	0.84	1.28	0.8	1.53
Umbertide	DL	2.08	0.46	0.29	0.53
Cluster 2 Mean		*1.96*	*0.84*	*0.85*	*1.13*
			Cluster 3		
Città di Castello	DG	11.88	0.05	0.03	3.97
Perugia	DG	1.78	0.18	0.19	3.97

Table 1 continued

Perugia	DM	1.93	0.1	0.1	6.49
Spoleto	DG	14.1	0.02	0.03	3.97
Terni	DM	13.18	0.01	0.01	6.49
Cluster 3 Mean		*8.57*	*0.07*	*0.07*	*4.98*
			Cluster 4		
Gualdo Tadino	DI	1.35	8.55	5.57	0.87
Gualdo Tadino	DK	1.37	5.47	3.57	0.25
Cluster 4 Mean		*1.36*	*7.01*	*4.57*	*0.56*

Source: our calculations

In particular, the first group is constituted by competitive dimensions of different territories (seven different LLSs belong to the cluster, each one with one specialization except Umbertide), showing a double average export performance in some sub-sectors (food, textile and metals); specialization and diffusion values, on average, more than twice the Italian level, and a dimensional structure perfectly on average. Productive contexts, that are hence relevant for the local manufacturing sector and for the socio-economic environment, but with not distinctive dimensional features. Note that some combinations of territory/industry very meaningful for the manufacturing Umbria belong to this cluster: Assisi and Umbertide were recently indicated as industrial districts specializing in textile and textile products (MAP, 2002), the specialization (DB) that they assume in cluster one; Fabro and Orvieto, in the food industry (DA), emerge in other recent analysis (Perugini and Sediari 2003) as local production systems able to strongly integrate typical food processing with the agricultural and tertiary (especially tourism) sectors *(integrated local rural systems)*. In other words, the competitive dimension of group one seems significantly anchored in external economies of specialization, and deriving from a considerable diffusion at the local level, of the "culture" of that production, generating forms of competitive advantage based on the recalled dimensions: local knowledge, efficient information, labour division end consequent flexibility, etc.

Very different are the structural premises at the basis of the competitiveness dimension of the territories and industries grouped in the third cluster, classifying all contexts specialized in chemicals and

fibre or transport equipment products, but with a low specialization level and not influencing significantly the local socio-economic context. The first feature to be noted refers to the convergence of the five cases of good export performance of sub-sectors DG and DM in the same group, without any information given in the cluster analysis about the sector associated to the territory. This could be interpreted as a significant distinctive sector-based competitive dimension, relatively independent from the territory of belonging; in other words of a competitive advantage almost completely built inside the firm (the corresponding territories are not specialized in, nor significantly affected by, the industries); even though the internal competitive dimension cannot be directly connected to economies of scale, given the above average incidence of small companies in the contexts considered.

The fourth competitive option (group 4) is particularly interesting as opposed to the previous one. It clusters, indeed, two competitive dimensions of the same territory (Gualdo Tadino) in two manufacturing sub-sections (DI and DK) strongly characterizing the local context, but also with a dimension distribution more oriented towards medium and large firms, compared to the national average. This competitive option, in other words, seems to combine and complement both the advantages drawn around and inside the firm. Notwithstanding the significant differences between the two sectors (deep tradition of artistic pottery manufacturing and large number of SMEs in the case of non-metal mineral products; recent localization of a large firm of electric domestic appliances with consequent agglomeration effects in the DK sub-section) this evidence would suggest the existence of a peculiar territorial competitive pattern, sector-crossing, consistent with some important theoretical position of the Italian literature on local development (Brusco, 2001).

The information provided by the analysis evidence a strong variety of structural models underlying the higher performances of some territories even of a relatively small but significant region as Umbria. This resembles the marked and well-known social and economic diversification of the contexts, implicitly considered in the analysis recurring to the LLSs unit of observation.

The methodological consequences and the policy implications seem relevant, and will be briefly treated in the concluding section.

FINAL REMARKS

The first general consideration that can be drawn from the outcomes of the research presented, deals with the possibility and the necessity to apply the theoretical background used in this paper to the socio-economic analysis of other regions and countries, especially those of Central and Eastern Europe, facing entrance into the large EU single market, where the competitive pressures will be stronger and selective. This implies the needs to investigate (and take advantage of) all the possible sources of potential competitive advantages, including those of a territorial nature dealt with in this paper. This consequently asks for the availability of the necessary and proper analytical tools (functional regions) able to assure the observation of the relevant diversities among territories in a given region or country.

Consistently with the structure of the paper, two other connected levels of more specific final remarks can be proposed.

The first one concerns the promising prospects for an enlargement of Umbria exports towards a number of EU accession countries, namely Hungary, Poland, Slovenia, the Slovak Republic and the possibility to maintain a relevant competitive position in other ones with a slower market potential (the Czech Republic, Romania).

The sector articulation of these exports flows (mainly concentrated in the light or so-called mature industry products) leads to the second order of reflections: the territorial productive and export specialization of the considered Umbria's sub-regions, largely dominated by the presence of clustered SMEs operating in the same industry. As shown, a meaningful performance of the region at international level becomes clearly apparent only considering proper units of analysis able to capture the effective complexity of local social and economic patterns. Moreover, the relevant relational attitudes of the firms, coupled with a strong propensity to export, could develop into forms of enlarged internationalization (inter-firm cooperation) especially with economic actors of the countries where Umbrian trade flows are more structured.

This means that the proper distance of observation of socio-economic phenomena is not a methodological aspect that can be neglected or simplified (i.e. administrative regions *equal* territories), but should be carefully considered prior to undertaking data collection and analysis. This allows elevating in certain cases, the territory itself (with its natural, human, social, economic, cultural, institutional features) to the role of peculiar *productive input*, liable to be translated into competitive advantage by the

firms belonging to the system. This enlarges the source of the competitive dimensions of the economic actors from exclusively inside the productive process to the context where they operate. As a consequence, the deep knowledge of the features of diverse local systems (actors, relations, rules) becomes strategically crucial for the explanation of regional differential of economic performance, rendering insufficient the traditional over-individualistic and under-socialised view of economic agents suggested by mainstream theory. And imposing an inescapable disciplinary integration that economics historically tended (and still now tends) to consider useless.

The implications of the approach on the normative spheres (policy recommendations) are clear-cut, in political contexts where the use of terms like *devolution, subsidiarity, local governance* is increasingly intensive. Neglecting the local peculiarities of socio-economic environments not only could translate into ineffective employment of the available resources, but could even be destructive of potential deposits of competitive advantages. From this point of view the Common Agricultural Policy (CAP) has historically represented an instructive case of exclusively sector-based intervention, without any (significant) concern to territorial differences across Europe. It is very well known how this policy not only led to large farming conversions (on the basis of *aid-seeking / aid-maximizing* behaviour of farmers) towards crop productions (cereals) socially undesired and costly to be managed. But also crucially contributed to the non-reproduction over time of immaterial inputs (first of all, knowledge) necessary for certain products (the Mediterranean products are a clear example) able instead to gain an autonomous (not depending on public action) position in competitive markets.

The challenge for the next decades to locally cope with (and take advantage from) globalization of markets, seems strongly dependent on the capacity to reproduce and valorize peculiarities and differences. The fact that this does not attain only to an individual sphere of economic actors but increasingly to the resources socially constructed over time (a collective reputation, a peculiar organizational model, etc.), suggests that the game will be played on the grounds of the capacity of public and private efforts to converge to this common strategic dimension.

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