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ADVANCED TECHNOLOGY, NEW SPATIAL DYNAMIC AND URBAN COMPETITION: A PROCEDURE FOR EVALUATING OF THE ITALIAN DISTRICTS' COMPETITIVE POTENTIAL ¹

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1. Introduction

The global change of economy and production determined by the impact of advanced communication technology are re-launching the role of cities and regions from local to global scale. Global competition among cities induces new spatial dynamic, modifying the traditional territorial hierarchies and concentrating the management of economic, technological and cultural relationships in a few metropolitan areas.

Starting from this assumption, this paper gives a contribution for setting up strategies targeted to the promotion of competitive take-off of Italian districts –considered as the most suitable reference unit for this work– closely connected to the strategic resources of each district.

In order to pursue this aim, the research work has a twofold goal:

- to identify the strategic resources enabling regions to gain a competitive advantage at different territorial levels (international, national, local);
- to evaluate the Italian districts' competitive potential in the international, national and local context.

The research work deals with the problem of the international competition among cities with a focus on the territorial aspect of the competition. Therefore, in order to set up a procedure for determining the competitive potential of the Italian districts, we consider

¹ Although this paper is conceived as a whole, the paragraphs 1, 2, 3 (“Introduction”, “Information society and territorial modifications: the scenery of the competition” and “The procedure for evaluating the Italian districts' competitiveness potential”) are by C. Gargiulo and the paragraphs 4, 5, 6 (“The variables for the evaluation of the Italian districts' competitiveness potential”, “The Italian competitive systems: the distribution and the characteristics”, “Conclusions”) are by A. Galderisi.

apart from variables related to economy and production, also variables related to infrastructure equipment, settlement's quality, human resources, etc.

The main finding of the research work is a subdivision of the 95 Italian "districts" into five classes, according to their present or potential role in the global, national or local competition.

2. Information society and territorial transformations: the scenery of the competition

During the 1980's in Europe there was a slow process of transformation of institutional subjects responsible for the socio-economical exploitation of the territory. In relation to the global change of economy and production, cities and regions have re-launched their role in the international context apart from the economic and political strategies undertaken by national authorities.

Therefore, the globalization of economy has strengthened the biunique relation among markets, technology, production strategies, and process of dynamic evolution of urban and territorial systems, showing a field of competition on a global scale among urban and metropolitan areas.

In the last few years, the strengthening of competitiveness has become one of the main topics of the European Union. The "White Paper on growth, competitiveness and employment – The challenges and ways forward into the 21st century", worked out by the Commission of the European Communities in 1993, "sets out to foster debate and to assist decision-making – at decentralized, national or Community level - so as to lay the foundations for sustainable development of the European economies, thereby enabling them to withstand international competition while creating the millions of jobs that are needed" (CEC, 1993). The White Paper provides some useful remarks upon the role of Europe in the international competition and highlights the key factors for gaining a competitive advantage. In detail, regarding the future of the European Union, the document states: "we are convinced that the European economies have a future. Looking at the traditional bases of prosperity and competitiveness, Europe has preserved its chances. It possesses assets which it has only to exploit - assets such as its

abundant non-physical capital (education, skills, capacity for innovation, traditions), the availability of financial capital and highly efficient banking institutions, the soundness of its social model, and the virtues of cooperation between the two sides of industry.

The globalization of economies and markets, which involves the intensification of international competition through the emergence of a potentially unique worldwide market for an expanding range of goods, services and factors, brings out the full importance of that responsibility on the part of national and Community authorities as regards competitiveness. We must increasingly think in terms of competitive rather than comparative advantages. Comparative advantages traditionally relate to endowment in factors such as natural resources and are therefore fairly rigid. Competitive advantages are based on more qualitative factors and can thus be influenced to a large degree by corporate strategies and by public policies. In such a context, factor mobility and the capacity to combine factors effectively and to organize the social consensus on the share-out of value added are becoming much more important than the initial factor endowment” (CEC, 1993).

In order to understand the current phenomena, with regard to the scenery of international competition it is important to focus on the modifications concerning all the fields of economy which are progressively leading to an “informational society” (Castells and Hall, 1994).

These modifications can be interpreted as a product of joined action of some relevant processes which characterized the industrialised countries in the last fifty years. Among these, a key role was played by the technological revolution produced by rapid and relevant developments in the field of information and communication technology.

Referring to this, the Green Paper on Innovation, worked out in December of 1995, urges the States “to rely on intelligence and invest in the intangible. Education and lifelong training, creativity, the exploitation of research results and the anticipation of technical and commercial trends need to be developed. There is also a need for improving the management of enterprises, their openness to external influences and the involvement of employees in the innovation process, so that all the essential skills can be mobilised (CEC, 1995).

Therefore, the advanced communication technology, the intangible, is the key element in order to understand the current change: also in the industrialized countries the

operators of economic renewal have to catch the strategic role of communication flows on the circulation and distribution of technology, money, people, ideas, and so on, in order to accept the challenge of globalization. This implies the growth of a new business knowledge, which would find suitable competitive areas on the international markets and discover in the geographical position resources and reasons for an effective action in the fields of employment and production.

Furthermore, in the last decades, technological change and new economic organization determined new production forms whose competitiveness is more and more connected to the access to information and to the ability of dealing and elaborating it. In detail, the statement that the inputs deriving from scientific and technological research are the essential support to the economic and productive growth and represent a primary source for future development of advanced societies is now widely shared. Many authors explain the re-launching of an area into international competition as a function of the technological level of production fields and of the diffusion of new technology (Dosi et al., 1988; Gargiulo et al., 1994). In other words, the possibility of updating the technological basis for industry and urban activities and of accessing, using and elaborating information can be interpreted as the key factor for becoming competitive on the international scene.

However, the novelty connected to this statement consists not in the addition of a new factor to those traditionally determining economic growth -capital, manpower and raw materials- but in the reorganizing effect that science and technology can induce in the process of economic growth and in its components.

The sharing of virtual space and the destruction of the traditional concept of space are causing the overcoming of new ways and forms of the urban activities' organisation. In such a context, the partition of the territory is going to be radically modified and the relations among contiguous areas are assuming a subordinate role in respect to the relations among the key points of information exchange (Formica, 1991). Moreover, new forms of organisation among urban and regional entities and new forms of enterprise organisation are emerging. These can be represented by a network aimed at promoting co-operation and/or co-ordination between single units more or less spatially articulated.

Therefore, the emerging “network society” seems to drive towards a process that is contextually of centralization and decentralization, in relation to the spatial requirements of each activity and each organization (Castells, 1995). The new territorial organization could be better interpreted as “space of flows” than as “space of places”: in the new organization the most flexible actors in relation to the changing conditions of markets, of technology, of the cultural survey are going to assume a strategical role. These actors can be identified in the urban and regional systems with a strong international potential role, whose power seems to set aside the economical and political strategies carried out by national governments (Castells, 1995).

These subjects, even if less powerful in respect to national States, have a high ability of drawing resources and supporting the growth of innovative small and medium sized enterprises (Castells and Hall, 1994).

A further characteristic of the new context of international competition and global economy is the dualism and the interaction between local and global development. Referring to this, it is possible to state that there is no discrepancy between an economy of firms and regions, being more and more open and international, and the strong local character of these firms and regions, characterized by a territorially different identity (Beccatini and Rullani, 1993). The interactions between local and global emphasize more and more the strategical role of urban and regional areas and mainly of their identity (related to their culture, resources, economy, ...) in influencing the integration of the actors within the context of the international competition.

Summing up, the current changes and mainly the phenomena of market and economy globalization are causing a re-organization of the roles that urban systems are called to assume in the international context. These modifications ask for new approaches to the reading and interpretation of the urban phenomenon and consequently to the understanding of the role that cities play in the local, national or international context.

The idea of a town that, as regards its size and its population represents a local area of gravitation and proposes itself as advanced centre of cultural and technological elaboration for its region (Camagni, 1994) seems to express an obsolete economic, productive and technological context.

Within the “information society”, the competition needs are going to become, in some cases, an opportunity for triggering new synergies among urban contexts. So, beside the

traditional vertical hierarchies, horizontal and transversal connections of reticular type are going to emerge (Conti and Spriano, 1990).

In the network territory, specific points of the world are selected and connected within the system while other points of the system are disconnected (Castells, 1995).

In such a context, we assist on one hand to a competition among the big European metropolitan areas in order to attract directional activities -able to characterize these systems as gateways between local and global context- on the other hand, some smaller cities, characterized by higher level specialized activities, are increasing their international role. The status of international cities with a high role in the international urban hierarchy, which these cities are going to assume, is not related to their size but to their specialization ability. Referring to this process, the possibility of each town to fully exploit their own potential largely depends on the ability of each town to strategically focus their activities, their resources, their potential on their own capabilities (Camagni, 1990).

Big cities cannot base anymore their development upon their size or the number of their inhabitants (and the consequent agglomeration and specialization effects related to this). All the urban systems have to identify and to strengthen the strategical elements and activities for gaining a competitive advantage on the international or national scene and extend their network, aiming at becoming a key point in the network world.

Starting from the analysis of current phenomena, an interpretative model articulated in five conceptual steps has been outlined (fig. 1).

The internationalization of economy, market and culture leads to a world competition among emerging urban systems. In such a context, a new zoning occurs, related to the different areas of urban and regional systems' influence; the wideness of this area depends on the size of the economic, business and cultural relations network characterizing each system.

Fig. 1 The interpretative model



The new hierarchies do not depend on the physical contiguity but on the exchange flows, both physical and intangible. In relation to these, each system can become the focus point of a local, national or international area.

Furthermore, the position and the role that each urban or regional system can play are related both to its economic and productive characteristics and to the presence and the quality of infrastructure and facilities equipment, on the demographic size and so on. We have focussed specifically on this latter group of characteristics.

In order to translate a conceptual model into an operative procedure, we had to answer to three key questions:

- which are the possible areas of influence for the competition?
- who are the actors of the competition (cities, regions or other territorial units)?
- which are the territorial features mainly influencing the competition at the different territorial scales?

In the next paragraph, we will deal with these answers, in order to outline a procedure for the evaluation of the competitiveness potential.

3. The procedure for evaluating the Italian districts' competitiveness potential

The acquisition of a competitive advantage is closely related to the characteristics of the city and/or to that one of the wider territorial system, which the city belongs to.

Referring to the international literature (Bonnafous et al., 1991; Bonneville et al., 1991; Conti, 1990; De Roo, 1990; Gibelli, 1994; King, 1991; Morandi, 1994; Soldatos, 1990; Scaramellini, 1991), the main features of an emerging metropolis, or a city strongly oriented to the international competition, can be synthesized as follows:

- to be an interface between the local and global economy;
- to be a transport and telecommunication key-point, able to elaborate and transfer news, information and culture;
- the presence of a strong fabric of productive, directional and research activities within and around the city;
- the presence of directional and financial activities and advanced services to the production too;
- the presence of a growing economy that allows capital concentration and development, making these cities attractive for new investments;
- the rise of some urban economy's fields and (matching with) the simultaneous decline of others.

These characteristics can be interpreted as the pre-conditions for getting a competitive advantage on the international scene.

Basing on this assumption, the research work has been mainly addressed to subdivide the Italian districts into areas characterized by different levels of competitiveness, with relation to their own features. In detail, the Italian districts, as regards the presence of the resources considered as strategic in order to gain a competitive advantage, have been classified into five classes:

- a) territorial systems that play a role in the international competitive context;
- b) territorial systems that could play a role in the international competitive context;
- c) territorial systems that play a role in the national competitive context;
- d) territorial systems that could play a role in the national competitive context;
- e) territorial systems that play a role on a local level.

The classes a and c represent the possible areas of influence for the competition. Nevertheless, in order to get a more careful definition of the intervention strategies, we

included two more classes (b and d). So, we answered to the first one of the three questions above raised.

Referring to the second question, we assumed as the most suitable unit of reference for this work the districts rather than the city. As a matter of fact, owing to the diffusion of advanced technology, the process of decentralization affected many urban activities, such as research and development, training or productive activities, all of them characterized by a relevant role in viewing of gaining a competitive advantage. Therefore, we preferred to extend the boundaries of the territorial unit of reference from the city to the district.

The third question is related to the definition of the territorial characteristics mainly influencing the competition at different territorial levels. Referring to the international literature, it is possible to state that competitiveness is closely connected to the presence of communication networks, natural resources, facilities, services, human resources; all of them play, in fact, a relevant role for re-launching an urban system in the international competition.

Starting from this assumption, six strategical fields have been identified:

- mobility and communication;
- human capital;
- economic welfare;
- training and research;
- production;
- environment and habitat.

The first field (mobility and communication) refers to the intensity of use of the infrastructure for people, goods and information's transfer, and to the spreading of information. In detail, as variables for describing this field we can assume the number of airports, of videoconference's hall, of Internet servers. These facilities, supporting the exchanges both outside -among the system and a wider and wider area- and within the system, can promote and stimulate the competitive role of an area. The second field (human resources) refers to the sociocultural characteristics of the population, with reference to the cultural level, the skills, the employment structure. The third one refers to the economic welfare of the population and to the dynamism of the economic milieu. The fourth one refers to the existing research and training facilities within the system

and the facilities aimed at promoting and support the research and development activities take-off. The fifth one refers to the innovative characteristics of enterprises and production facilities. The sixth one, finally, mainly refers to the above mentioned “comparative advantages”. It refers to the features of the territory and to its quality and attractiveness. Useful indicators for describing this field are the extension, the density of population, the number of tourists’ attendances or accomodation facilities and, on the contrary, indicators referred to the problems of social decay affecting mainly the urban and metropolitan areas.

The definition of these fields represents also the starting point for the outlined operative procedure (fig. 2) referring to the interpretative model described above.

Fig. 2 The operative procedure

4. The variables for the evaluation of the Italian districts' competitiveness potential

After defining the fields playing a key role in the acquisition of a competitive advantage, we worked out a set of variables in order to describe the state of each system we are going to analyze (the Italian districts).

The selected variables (fig. 3) enabled us to reach a better understanding of how urban and metropolitan organization and mainly how their competitive potential are supported both by traditional "geographic" space (with reference to the fields human resources, environment and habitat) and by the networks (with reference to the fields mobility and communications, information and economic fluxes).

Furthermore, it is to be remarked that the acquisition of a competitive advantage is connected not with the presence of a specific resource among the ones we identified but to the synergies rising from the contemporary and contextual presence of most of them.

In order to classify the 95 Italian districts into the five classes previously identified, the set of variables has been subdivided as follows:

- the variables representing a discriminating factor in order to gain a competitive advantage, from now on called "determinants";
- the variables describing the state of the systems, from now on called "indicators".

The articulation proposed is transversal as regards the fields above mentioned. The first group is targeted to identify districts that already play an active role on the scene of the international competition, in other word we used these variables only to identify the districts with a well established international role. Therefore, according to the international literature (Bonavero, 1990; Soldatos, 1990; Morandi, 1994), this group includes only those variables that cannot be got rid of in order to be competitive in the global context.

The second group, targeted to assign each system to one of the five classes before identified, includes variables describing the system's features as regards the demographic size of the territorial systems.

Fig. 3 The selected variables

FIELDS	VARIABLES
Mobility and communication	1 international airports 2 passengers on international flight services 3 circulating vehicles per km of road 4 telecom licences per 1000 inhab. 5 telecom business licences per 1000 inhab. 6 Internet servers per 100.000 inhab. 7 Internet servers 8 eurocity and intercity trains 9 public and private videoconference's hall 10 videoconference's hall per 100.000 inhab. 11 sold newspapers per 1000 inhab.
Human capital	12 demographic size of the district 13 demographic size of the district's capital 14 working people per 1000 inhab. 15 unemployed per 1000 inhab. 16 graduates per 1000 inhab. 17 professional men and entrepreneurs/employed 18 employed/working 19 average expenditure for cultural events per inhab.
Economic welfare	20 production workers/employed 21 per-capita income 22 residents' consumptions 23 bank deposit per-capite 24 GDP per-capite 25 GDP services per-capite 26 GDP industr per-capite 27 new bank's counter (1993-94) 28 new bank's counter (1993-94) per 10.000 inhab. 29 income
Training and research	30 training services per 10.000 inhab. 31 Universities 32 Universities per 100.000 inhab. 33 R&D companies 34 R&D companies per 10.000 inhab. 35 Scientific and Technological Parks 36 Scientific and Technological Parks per 100.000 inhab. 37 bookshops per 10.000 inhab.
Production	38 firms per 1000 inhab. 39 multilocalized firms/ firms per 1.000 inhab. 40 import-export firms per 1.000 inhab. 41 associated firms per 1.000 inhab. 42 firms with information equipments per 1.000 inhab. 43 expired firms / registered firms in 1993 44 production facilities per 100 firms 45 information production facilities per 100 firms 46 international fairs 47 international fairs per 100.000 inhab. 48 leading firms 49 leading firms /firms
Environment and habitat	50 demographic size/area 51 cost of dwelling per squaremeter 52 museums per 10.000 inhab. 53 % mountainous area 54 average temperature 55 hotels per 1.000 inhab. 56 foreign tourists /inhabitants 57 travel offices per 10.000 inhab. 58 homicides per 10.000 inhab. 59 tricks per 10.000 inhab.

The first group of variables enabled us to carry out a grid for the selection of the “international” districts. The grid consists in 14 variables, listed below with the acronymus, the sources and the year in which the information was surveyed:

- 1) demographic wideness of the district (DEMODIS), Population Census 1991;
- 2) demographic wideness of the district's capital (DEMOCAP), Population Census 1991;
- 3) number of international airports (AIRPORTS), Statistical Italian Compendium 1991;
- 4) number of passengers on international flight services (FLIGHTPASS), Statistical Italian Compendium 1991;

- 5) number of international fairs (FAIRS), rielaboration on data European Trade Fair and Cescom, 1991;
- 6) number of R&D companies (R&DCO), Enterprises Census 1991;
- 7) number of Scientific and Tecnological Parks (STP), APSTI, 1992;
- 8) number of Internet servers (INTERNET), rielaboration on data GARR,1995;
- 9) number of public and private videoconference's halls (VIDEOCO), rielaboration on data Telecom, 1995;
- 10) number of universities (UNIVERSITIES), DEA Yearbook, 1994;
- 11) number of firms which are leading in their own field (LEAD); rielaboration on data Mondo Economico ,1994;
- 12) number of new bank's counters (from July 1993 to May 1994) (NEWBAN); ABI, 1994;
- 13) number of eurocity and intercity trains (TRAINS); rielaboration on data F.S.;
- 14) per-capita income (INCOME); Istituto Tagliacarne, 1993.

Once we defined the grid, consisting of a matrix 95X14, we put the values assumed by each district as regards each variable in a growing order. Referring to this classification, we define as “international” only the districts that, according to each variable, were placed at the top of the classification.

The second group of variables, the “indicators”, enabled us to assign each district to one of the five classes previously identified.

The variables included in this group have been further subdivided into two groups:

- variables describing phenomena that have a positive influence on the competitiveness of an area;
- variables describing phenomena that represent deterrents in order to gain a competitive advantage (eg. unemployed in relation to the working population).

A first screening of the data referred to all the variables allowed us to exclude some variables being scarcely meaningful or not important for competitive advantage (eg. television licence holders). This selection enabled us to outline a final matrix, 95x25, which has the 95 cases –the Italian districts– on the rows and the 25 status variables selected on the columns. In order to assign each case to a class, the values assumed by the cases in relation to each variable were subdivided into five equal intervals. So, we defined the number of cases in each class and ordered them into five groups in relation to each variable. The 95 cases were assigned to the 5 classes in relation to the frequency of presences that each case counts in each class. In other word, the number of presences of each district in each class enabled us to assign the case to the class that counted the higher number of presences.

5. The Italian competitive systems: the distribution and the characteristics

The analysis of the classifications related to the two groups of variables, “determinants” and “indicators”, allowed us to outline different consideration.

Referring to the character of “determinants” of the variables included in the first group, as we stated above, only the districts placed at the first or the second step of the lists related to each variable, can be assumed as “international”.

The reading of the 14 decreasing orders of the first group’s variables highlights that the districts of Milano and Roma are mostly at the upper position (the first or the second one) of the lists related to each variable.

Only the list referred to the variable “per capita income” shows the district of Trieste at the top, and the lists referred to Internet servers, number of universities and of Scientific and Technological Parks shows the second places alternately for the districts of Bologna and Torino (fig. 4).

Nevertheless, we considered as first class districts only the ones of Milano and Roma. The values assumed by these districts in relation to each variable enabled us to state that the competitiveness of the district of Milano is mainly connected to the economic and productive factors, while the competitiveness of the Roman district is mainly connected to the fields of research, training and communication.

Even though the first set of data assigns an international role only to the districts of Milano and Roma, we will report the final classification of the international Italian districts. This classification have been carried out summing the presences of the 95 districts at the first ten places of the 14 starting lists. At the top of the classification there is the district of Milano; the other districts are ordered as follows: Roma, Torino, Bologna, Firenze, Genova, Napoli, Bari. The last three positions are occupied by more than one case; the 8th position is occupied by the districts of Catania, Verona and Venezia; the 9th by the districts of Palermo, Brescia, Bergamo, Trieste, Pavia e Pisa and the lower position, the 10th, by the districts of Parma and Padova. Moreover it is to be remarked that, even though the districts of Torino and Bologna show a high number of presencies at the upper positions, they are never placed at the top of the classification.

Fig. 4 Decreasing order of the districts as regards the “determinants”

	DEMODIS	DEMOCAP	AIRPORTS	FLIGHTHPASS	FAIRS
1	Milano 3922710	Roma 2693383	Milano 2	Roma 10392643	Milano 51
2	Roma 3761067	Milano 1371008	Roma 2	Milano 7577733	Bologna 13
3	Napoli 3016026	Napoli 1054601	Torino 1	Venezia 1102103	Firenze 12
4	Torino 2236765	Torino 961916	Bergamo 1	Bologna 773386	Verona 7
5	Bari 1530170	Palermo 697162	Venezia 1	Napoli 738563	Torino 6
6	Palermo 1224778	Genova 675639	Verona 1	Torino 637801	Genova 5
7	Firenze 1184681	Bologna 404322	Trieste 1	Verona 487301	Napoli 5
8	Salerno 1066601	Firenze 402316	Genova 1	Pisa 479540	Forli 4
9	Brescia 1044544	Bari 341273	Bologna 1	Catania 377097	Bari 4
10	Catania 1035665	Catania 330037	Forli 1	Firenze 300889	Padova 3

	R&DCO	STP	INTERNET	VIDEOCO	UNIVERSITIES
1	Roma 432	Milano 4	Roma 20	Roma 21	Roma 6
2	Milano 231	Torino 2	Bologna 13	Milano 12	Milano 5
3	Torino 201	Novara 1	Milano 11	Bari 9	Napoli 4
4	Firenze 191	Pavia 1	Trieste 11	Palermo 8	Pisa 3
5	Bologna 145	Trieste 1	Torino 10	Torino 7	Torino 2
6	Napoli 106	Genova 1	Pisa 10	Firenze 5	Brescia 2
7	Genova 80	Parma 1	Trento 8	Napoli 5	Venezia 2
8	Perugia 80	Piacenza 1	Genova 7	Bologna 4	Firenze 2
9	Palermo 76	Pesaro 1	Firenze 6	L'Aquila 4	Macerata 2
10	Catania 74	Roma 1	Pavia 5	Venezia 3	Bari 2

	LEAD	NEWBAN	TRAINS	INCOME
1	Milano 407	Milano 76	Milano 115	Trieste 34640000
2	Roma 104	Roma 57	Roma 104	Bologna 33420000
3	Torino 92	Caaliari 39	Bologna 69	Cremona 32230000
4	Bologna 43	Torino 36	Venezia 68	Mantova 32140000
5	Genova 33	Brescia 36	Genova 68	Milano 32110000
6	Firenze 26	Treviso 30	Firenze 53	Gorizia 31910000
7	Bergamo 25	Cuneo 29	Napoli 43	Parma 31350000
8	Brescia 25	Bari 26	Bari 40	Bergamo 31340000
9	Padova 25	Padova 25	Torino 34	Aosta 31300000
10	Modena 25	Genova 25	Verona 34	Pavia 31140000

With reference to the second set of data, the 25 indicators above mentioned, the 95 Italian district have been subdivided into five classes, characterized by a different competitive potential. The analysis of the second set of data confirms the international role of Milano district, while clashes with the roles previously assigned to the districts of Roma and Bologna: this set of data highlights a shifting of Roma district from the first to the second class and assigns an international role to the district of Bologna. In order to explain these shifts, it is important to remark that the second set of data refers to equipments and resources evaluated in relation to the demographic size of each territorial system. The presence of the district of Bologna in the first class is connected both to the high level of economic welfare (eg. per capita income, percentage of unemployment, levels of consumption, ...) and to the strong and diffuse vitality of cultural and business fabric (percentage of graduates, cultural events expenses, percentage of enterprises, ...). The second class includes, beside Roma, the districts of Firenze, Trieste, Modena, Parma, Bolzano, Forlì and Reggio Emilia.

Referring to the cases included in the first and in the second class, it is possible to distinguish two different city organization within the district:

- a first one is monocentric, characterized by the presence of a metropolitan area with a centripetal role within the district, as Milano and Roma;
- a second one is policentric, characterized by the absence of an attractive metropolis.

In detail, the presence of many Emilia Romagna's districts in the first or in the second class seems to confirm that a policentric organization of the regional context fosters the gaining of a competitive advantage, affecting a whole regional system rather than a single district.

Fig. 5 The frequency of the cases as regards the five classes

		CLASSES							CLASSES				
	Districts	I	II	III	IV	V		Districts	I	II	III	IV	V
1	Milano	10	8	7	0	0	49	Ascoli Piceno	0	6	9	7	3
2	Bologna	9	8	6	1	1	50	Pavia	0	6	8	7	4
3	Trieste	3	11	9	2	0	51	Sondrio	1	3	11	5	5
4	Trento	1	7	9	5	3	52	Rovio	1	4	8	6	6
5	Firenze	2	12	8	2	1	53	Massa Carrara	0	3	7	13	2
6	Roma	1	14	5	5	0	54	Terni	1	2	6	13	3
7	Verona	3	9	7	5	1	55	Sassari	1	1	7	13	3
8	Modena	2	11	7	4	1	56	Napoli	2	2	1	16	4
9	Genova	1	10	8	6	0	57	Bari	1	1	3	19	1
10	Varese	2	8	9	6	0	58	Cagliari	1	0	5	17	2
11	Padova	3	8	7	7	0	59	Catania	0	1	0	18	6
12	Parma	1	11	8	3	2	60	Palermo	0	1	4	17	3
13	Torino	0	8	13	3	1	61	Salerno	0	2	1	16	6
14	Pisa	1	8	9	6	1	62	Brindisi	1	0	2	10	12
15	Aosta	4	8	5	5	3	63	Chieti	1	3	3	14	4
16	Reggio Emilia	1	9	9	4	2	64	Trapani	2	0	1	15	7
17	Mantova	3	7	6	8	1	65	Siracusa	1	0	1	17	6
18	Gorizia	2	7	9	5	2	66	Enna	0	1	2	7	15
19	Piacenza	2	7	10	4	2	67	Caltanissetta	2	0	1	12	10
20	Venezia	1	3	16	4	1	68	Caserta	1	0	1	11	12
21	Vercelli	2	8	6	7	2	69	Foggia	1	0	1	13	10
22	Brescia	1	8	8	7	1	70	Taranto	1	0	2	14	8
23	Como	1	7	9	8	0	71	Catanzaro	0	1	1	10	13
24	Siena	2	5	13	3	2	72	Rieti	0	4	5	11	5
25	Cremona	4	4	7	8	2	73	Avellino	0	1	3	13	8
26	Treviso	2	7	7	8	1	74	Isernia	0	2	4	14	5
27	Vicenza	2	6	9	7	1	75	Lecce	1	1	3	9	11
28	Ravenna	2	8	7	7	1	76	Messina	0	1	4	16	4
29	Pistoia	1	5	11	5	3	77	Oristano	1	0	3	12	9
30	Savona	1	6	10	6	2	78	Viterbo	1	1	8	13	2
31	Arezzo	1	7	7	9	1	79	Nuoro	0	1	3	12	9
32	Alessandria	3	5	7	6	4	80	Reggio Cal.	0	0	3	11	11
33	Bolzano	1	10	5	5	4	81	Matera	1	0	5	13	6
34	Lucca	1	4	13	6	1	82	Agrigento	0	1	1	4	19
35	Udine	1	6	12	5	1	83	L'Aquila	0	3	7	11	4
36	Ferrara	1	4	12	7	1	84	Cosenza	0	0	3	9	13
37	Macerata	1	5	10	5	4	85	Radusa	1	0	5	12	7
38	Asti	2	6	6	7	4	86	Teramo	0	3	7	10	5
39	Novara	0	6	9	9	1	87	Benevento	0	0	5	11	9
40	La Spezia	0	5	12	6	2	88	Pesaro	0	5	12	6	3
41	Livorno	1	4	11	8	1	89	Campobasso	0	0	6	13	6
42	Ancona	1	3	13	7	1	90	Potenza	0	0	6	11	8
43	Belluno	1	5	11	4	4	91	Frosinone	0	0	7	12	6
44	Pordenone	1	6	10	6	2	92	Pescara	1	3	12	7	2
45	Grosseto	2	5	8	7	3	93	Latina	0	1	11	11	2
46	Perugia	0	6	11	6	2	94	Forli	1	9	9	5	1
47	Imperia	1	3	12	7	2	95	Bergamo	2	8	7	7	1
48	Cuneo	1	5	9	6	4							

Moreover, the case of Emilia Romagna's districts seems to confirm the hypothesis of a partial independence between competitiveness and demographic size (Galderisi, Gargiulo, La Rocca, Stanganelli, 1995), even though it is undeniable that the presence of a metropolitan area generally implies a polarization effect as regards some strategical activities for the international competition at different territorial levels (international, national, local). Furthermore, referring to the second set of data, it is to underline that some districts show the same frequency as regards more than one class. In that case, they have been assigned to one class rather than to another with relation to the type and the importance of the variables. For example, the district of Reggio Emilia, assigned to the second class, showed the same frequency as regards the second and the third class (fig. 5). In detail, the district could be assigned to the second class in relation to the features of the productive context and the wealth levels, and to the third in relation to the business services activities.

In the third class, it is remarkable the presence of the district of Torino, characterized by a position similar to the one of Bologna's district with reference to the first set of data and mentioned by some authors as a competitive city on the international scene (Gibelli, 1994). This presence is probably to attach to the size of the territorial unit of reference: as above mentioned, in disagreement with many other studies in this field, we assumed the district as territorial unit of reference. In some cases, this assumption could imply a levelling of the relevance of equipments and resources, generally gathered in the chief town.

In spite of the presence of relevant resources for gaining a competitive advantage in the chief towns, the districts of Napoli and Bari are in the fourth class. Probably, this also depends on the absence of an economic and productive fabric outside the main town.

Therefore, it is important to underline that there are no Southern districts in the first and in the second class and, likewise, there are no Northern districts in the lower classes.

6. Conclusions

The research work shows the first results of a wider research route aimed at working out strategies suitable to strengthen the competitiveness potential of Italian districts as regards the endogenous resources of each system.

On summing up, starting from the identification of the fields and the strategical resources for gaining a competitive advantage, the 95 Italian “districts” have been subdivided into five classes, related to their actual or potential role in the global, national or local competition (fig. 6).

In detail, the above shown results highlight, once more, the deep distance between the two parts of Italy (fig 7):

- the first one, the North and the Middle of Italy, characterized by metropolitan areas and regional systems that already play an active role on the international scene or that are taking the first steps in this direction;
- the second one, the South, characterized by big cities that still find it hard to gain a competitive advantage in the national context.

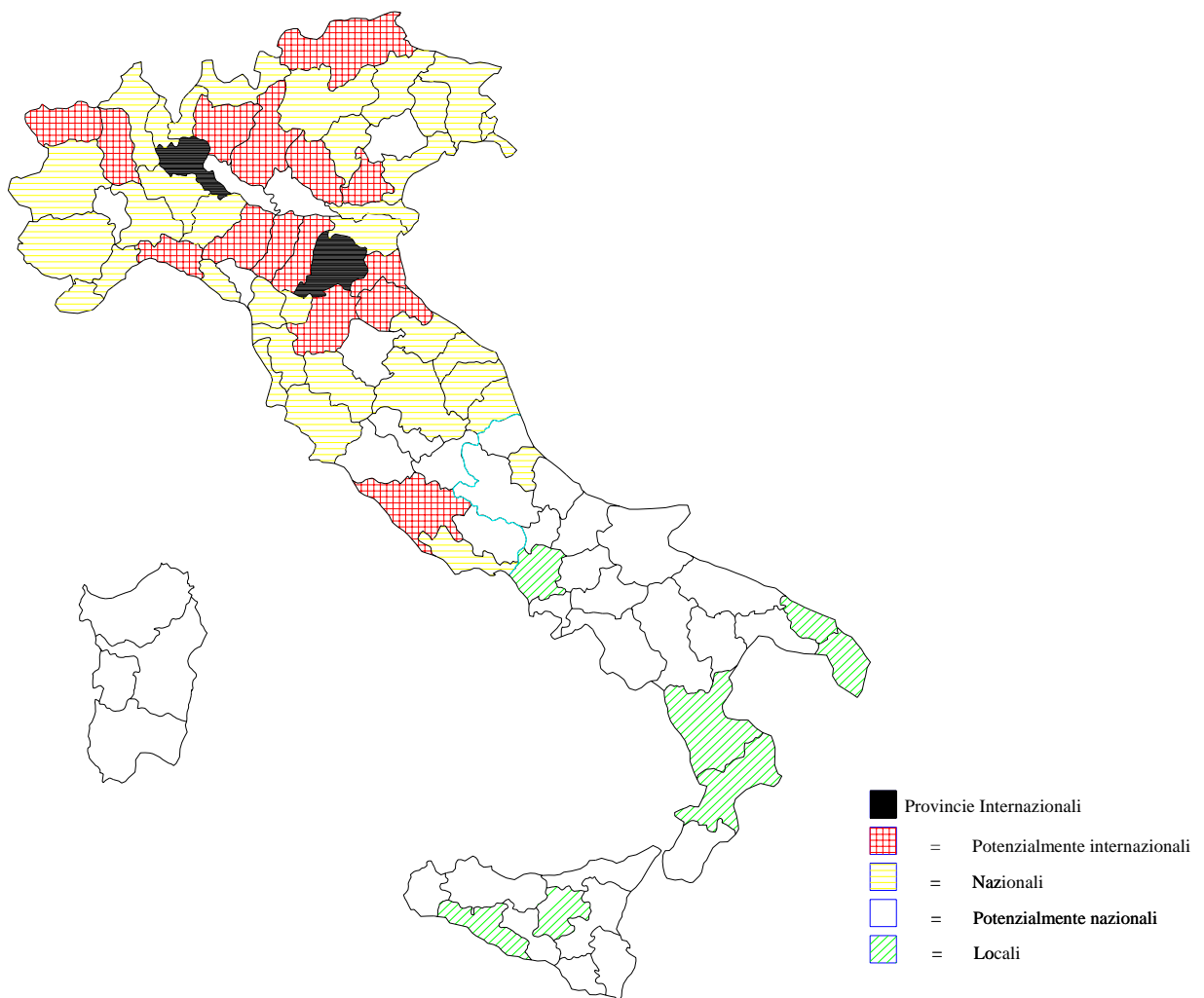
In this context, the only exception is the district of Roma whose exceptionality seems mainly related to the role of Roma as capital city.

Referring to North and Mid-Italy, although all the districts show a marked competitiveness potential, it is possible to distinguish four different kind of areas:

- districts whose international role seems to be a result of their geographical position; these districts can be classified as transnational systems, historically belonging to the core of Europe;
- the Milano district, the only Italian district that already plays an active role on the ground of the international competition; nevertheless this district is cut off from its regional context;
- the case of Emilia Romagna, where the polycentric organization of the urban centres within the region, in spite of the presence of some metropolitan areas as Bologna, seems to rise a competitive advantage that, starting from single districts, reach all the regional context;
- the competitive “non metropolitan cities”, a system spreading out along the axis that goes from Bergamo, through Brescia and Verona to Padova, a system that seems to confirm the independence between competitive potential and demographic size.

Finally, it is important to remark that, within a strong hierarchical organization of the Italian competitive systems, some territorial systems are coming out according to their specific activities, which separately or organized in network, could become excellence point in the national or international context. Thus, a further development of the research work could be targeted to the identification of competitive “dedicated” network that is suitable to the peculiarities, the potential and the susceptibility to transformation of each site.

Fig. 6 The classification of Italian districts as regards their competitiveness



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