Celata F. (2007), Geographic Marginality, Transport Accessibility and Tourism Development. In: Celant A., Global Tourism and Regional Competitiveness", Bologna: Patron, pp. 37-46.

Filippo Celata, Università di Roma La Sapienza (filippo.celata@uniroma1.it)

GEOGRAPHIC MARGINALITY, TRANSPORT ACCESSIBILITY AND TOURISM DEVELOPMENT

Introduction

The purpose of the study is to test empirically some hypothesis about the relation between transport accessibility, geographic marginality and tourism development. To what extent and how accessibility can represent a limit to tourism development in peripheral areas? Tourism is historically connected to the development of the transport system and the reduction of economic distances. Regions like the South of Italy (Mezzogiorno) may have as well suffered for their geographic marginality. Tourism destination in many peripheral areas however, demonstrates how marginality can even represent an attraction. The uneven development of Italian tourism is not only influenced by physical accessibility, but rather by more complex problems of economic marginality. Accessibility, marginality and development are complex issues and – especially in the case of tourism – it is not possible to draw deterministic relationships. Mezzogiorno is the ideal context for the analysis of the effective weight of distance in travel choices and tourism development.

Accessibility and tourism destination choice

The cost of travel is one of the main components of tourism expenditures; but distance is only one of many factors influencing the choice of destination. Many tourism areas have developed considerably despite their relative distance from competitors. A scarce accessibility can be balanced by other elements – and can even become itself a source of attraction.

The hypothesis is that tourists choose their destination according at first to local resources and attractions. In the decision process, tourists consider a number of alternative destinations with similar characteristics and vocations. Only after this first selection, destinations are compared according to their accessibility. The weight of accessibility on the decision is then correlated to the substitutability of destinations. Localities possessing competitive advantages can attract tourists despite their relative distance. The problem of accessibility may thus be relevant only for destinations with similar characteristics – for example the sea and sun

model of tourism – and not for unique places like historic cities and naturalistic sites. Accessibility per se cannot represent a source of competitiveness. We need to reverse the usual representation of the relation between peripherality, accessibility and local development: competitive advantages do not arise from being closer to the market, but from the ability to use and promote the local attractive potential to reduce the weight of distance. If a destination is unique – accessibility has no influence on its attractiveness.

For a measure of tourism accessibility

On the Base of a matrix on the origin and destination of tourism flows, I developed a traffic forecasting model showing the distribution of flows in two different transport modes (air travels and car travels), and the circulation of flows through a network distinguished in high-speed and low-speed routes.

This model allows the calculation of two tourism accessibility indicators:

1) an accessibility indicator measuring the potential average travel-time to reach the locality (see fig.1);

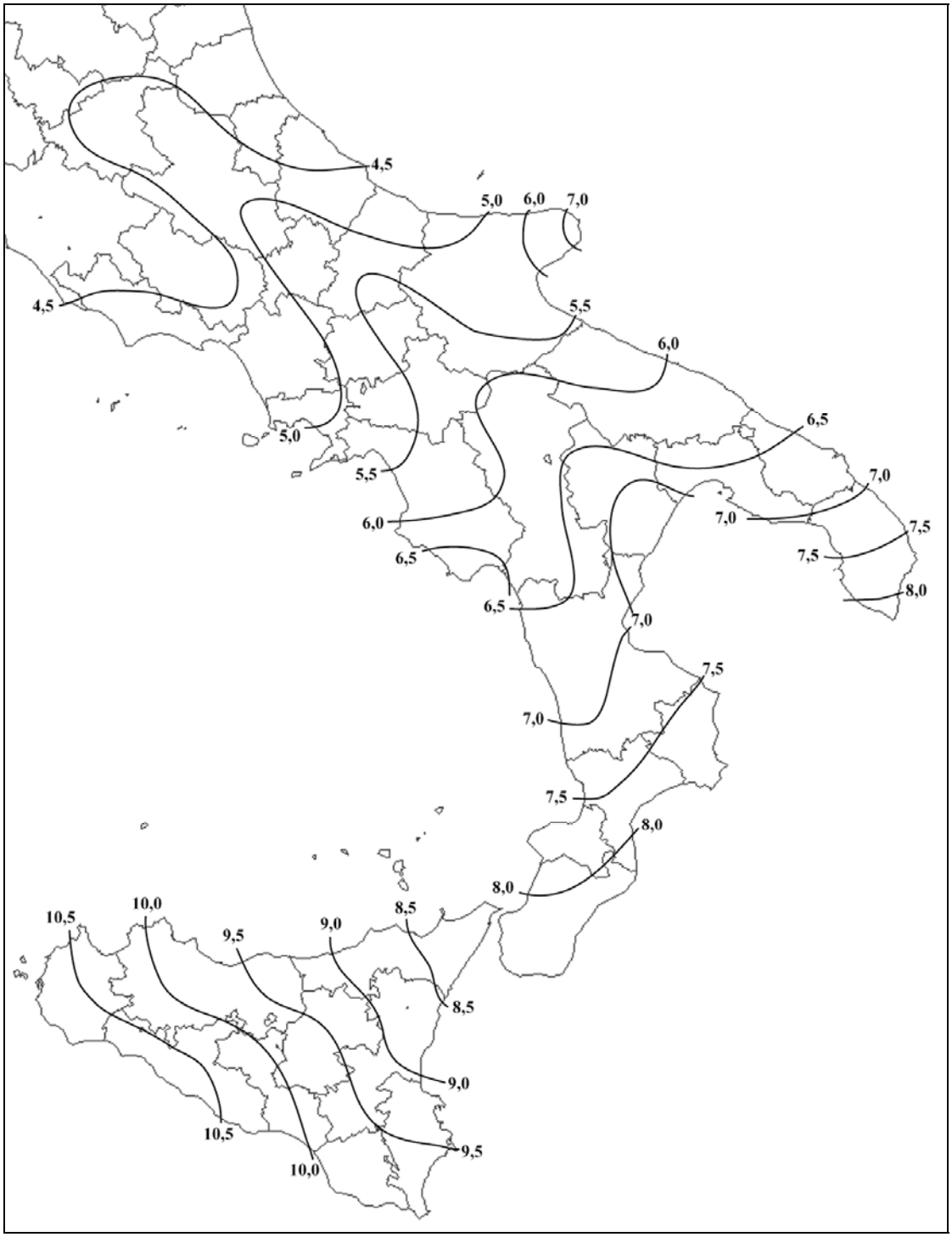
2) an access indicator measuring the effective average travel-time to reach the destination in the year 2000, calculated using data on the origin of tourism flows for each provincia of Mezzogiorno.

The indicators are expressed in average travel-time (hours). The formula for their calculation is the same. The difference is that to calculate the access indicator, data refers to the effective tourism arrivals to the locality; for the calculation of the potential indicator of accessibility data refer to the spatial distribution of global tourism demand.

The accessibility indicator allows the definition of tourism iso-accessibility lines – as showed in figure 1 for Italian Mezzogiorno – referring to half-an-hour intervals between 4,5 and 10,5 hours of average travel time.

Accessibility is a measure of the locality average distance from its whole market potential, while the access indicator can represent a measure of the average size of the effective market area for each locality. The evaluation of the weight of accessibility can only be obtained through the comparison of access and accessibility.

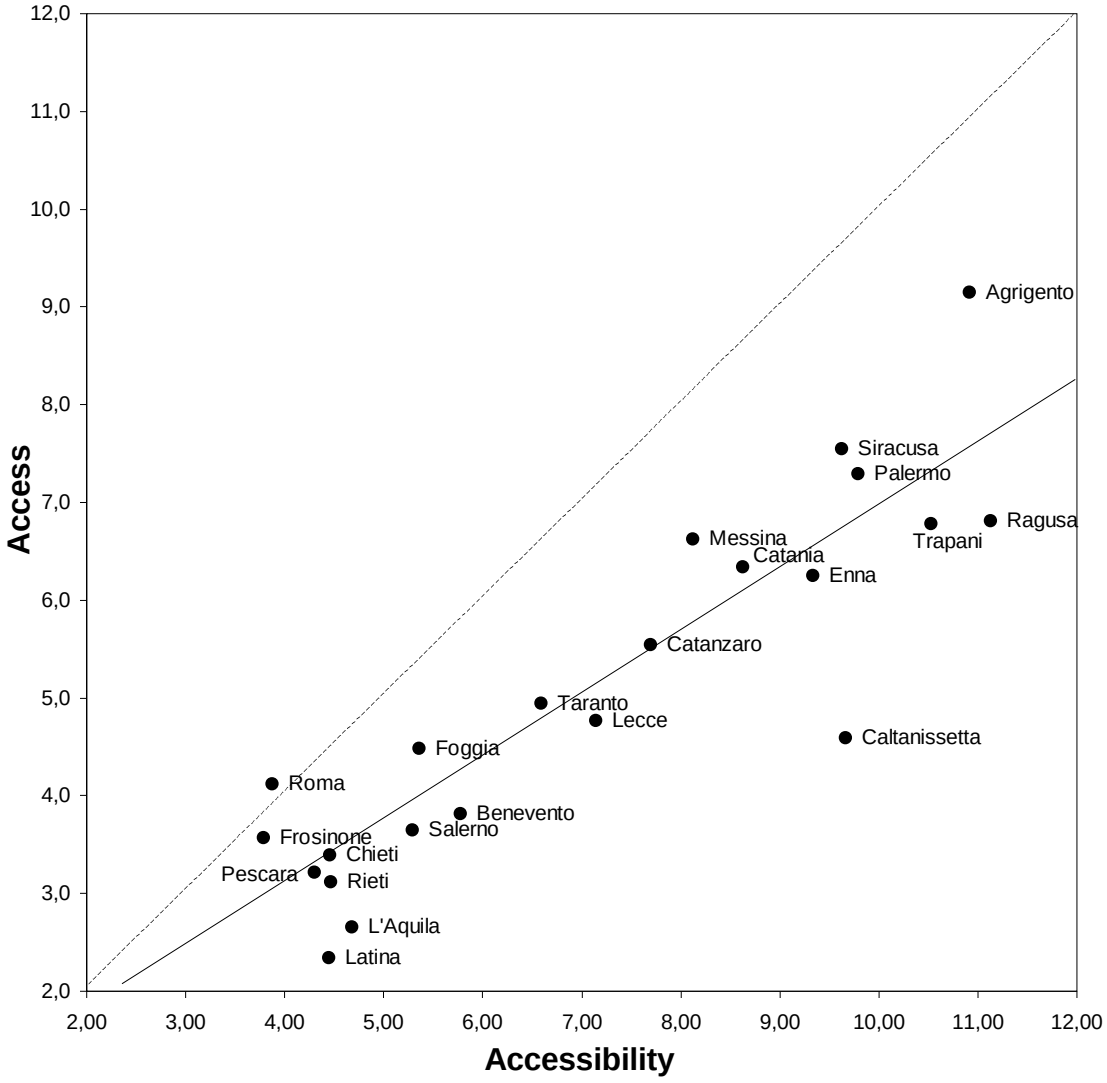
Fig. 1 – Tourism iso-accessibility lines



4. Transport accessibility and tourism competitiveness

To verify the weight of accessibility on the distribution of tourism flows, the two indicators can be correlated within each other and with other indicators expressing the degree of development and competitiveness of Italian provincie.

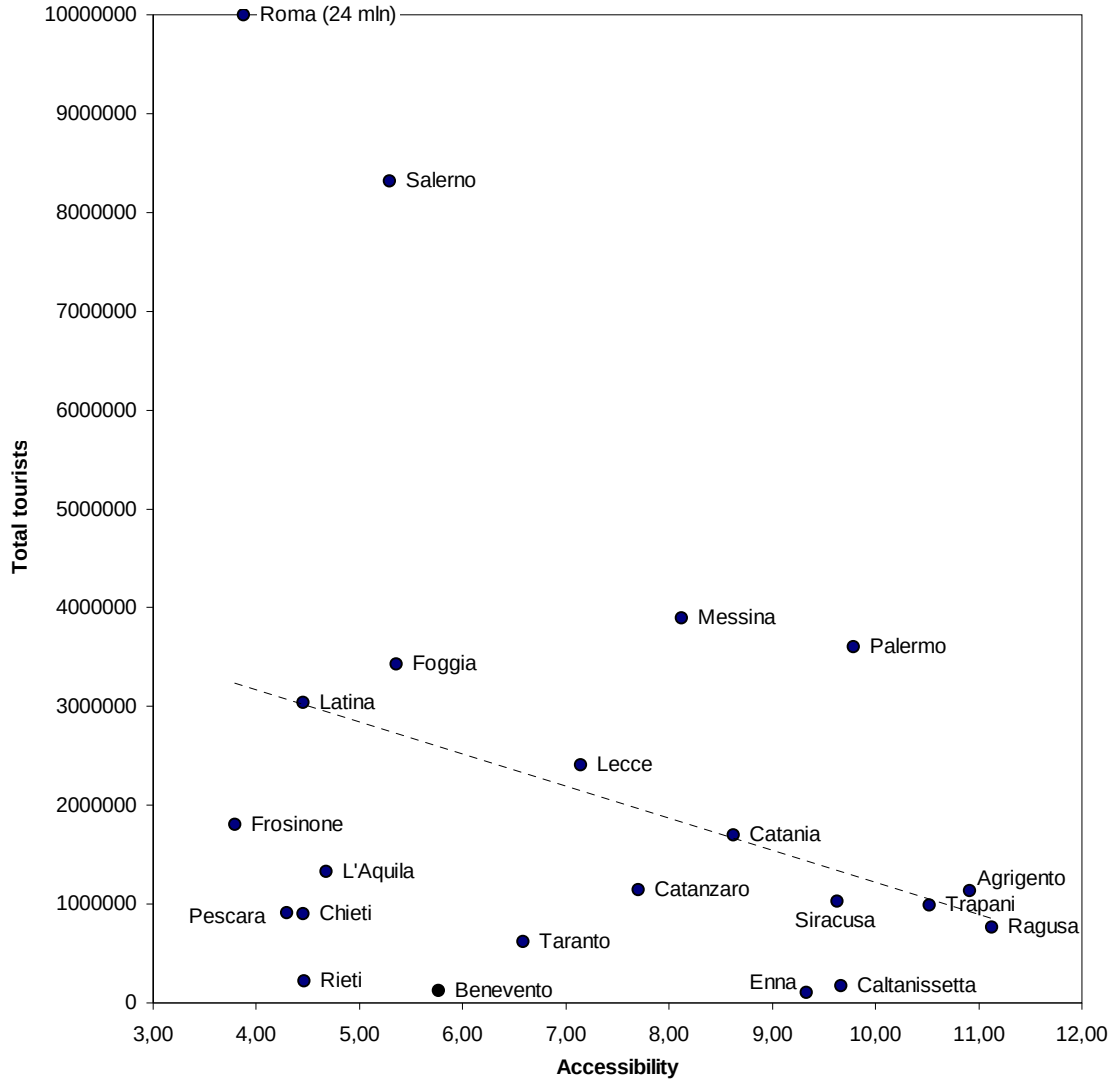
Fig.2 – Access and accessibility in Southern Italy provinces



From the analysis of correlations (see figures 2, 3 and 4) it is possible to extrapolate a few considerations:

1) The measure of access – except then in the case of Rome – is always inferior to that of accessibility; accessibility have thus a weight on the distribution of flows, measured by the distance of the correlation line between access and accessibility, and the 45 degrees line in figure 2. The two indicators however have a strong correlation (0,89). Accessibility per se can only explain a 10% of the distribution of flows.

Fig.3 – Transport accessibility and tourists flows, 2000



2) There is a correlation between accessibility and the amount of tourists in each locality (fig.3), but is extremely low (-0,33). This correlation is higher along the Adriatic coast – for example. It is null in the case of historical cities and in general for the most attractive destinations.

3) The correlation between accessibility and foreign tourism moreover, is -0,28. Domestic tourism is thus more sensible then foreign tourism to accessibility.

4) There's a 0,61 correlation between accessibility and "proximity tourism" (the amount of tourists flows that origin from the same region of the destination). Again, this relation is stronger for beach tourism destinations along the Adriatic coast.

Accessibility has thus an influence on the distribution of tourism flows, but can only explain a small part of this distribution. Tourists seem to choose their destination in Southern Italy with little reference to accessibility and travel-times. If this is true in general we can distinguish between sea and sand destinations for which the influence of accessibility on the distribution of flows is strong, and localities like historical cities and archaeological sites where this influence is null (like Salerno, Palermo, Agrigento).

The weight of accessibility – moreover – is different for different categories of tourists, and seems to be higher for tourists with a lower expenditure propensity. See tourism, proximity tourism and family tourism – despite an higher length of stay - seems to be more sensible to accessibility then city tourism and foreign tourism.

5. Tourism accessibility and transport policies options

The accessibility model can also be used to evaluate the impact of different transport policy options on tourism development. Figure 4 shows what will be the impact in terms of travel-time savings of three different kind of intervention:

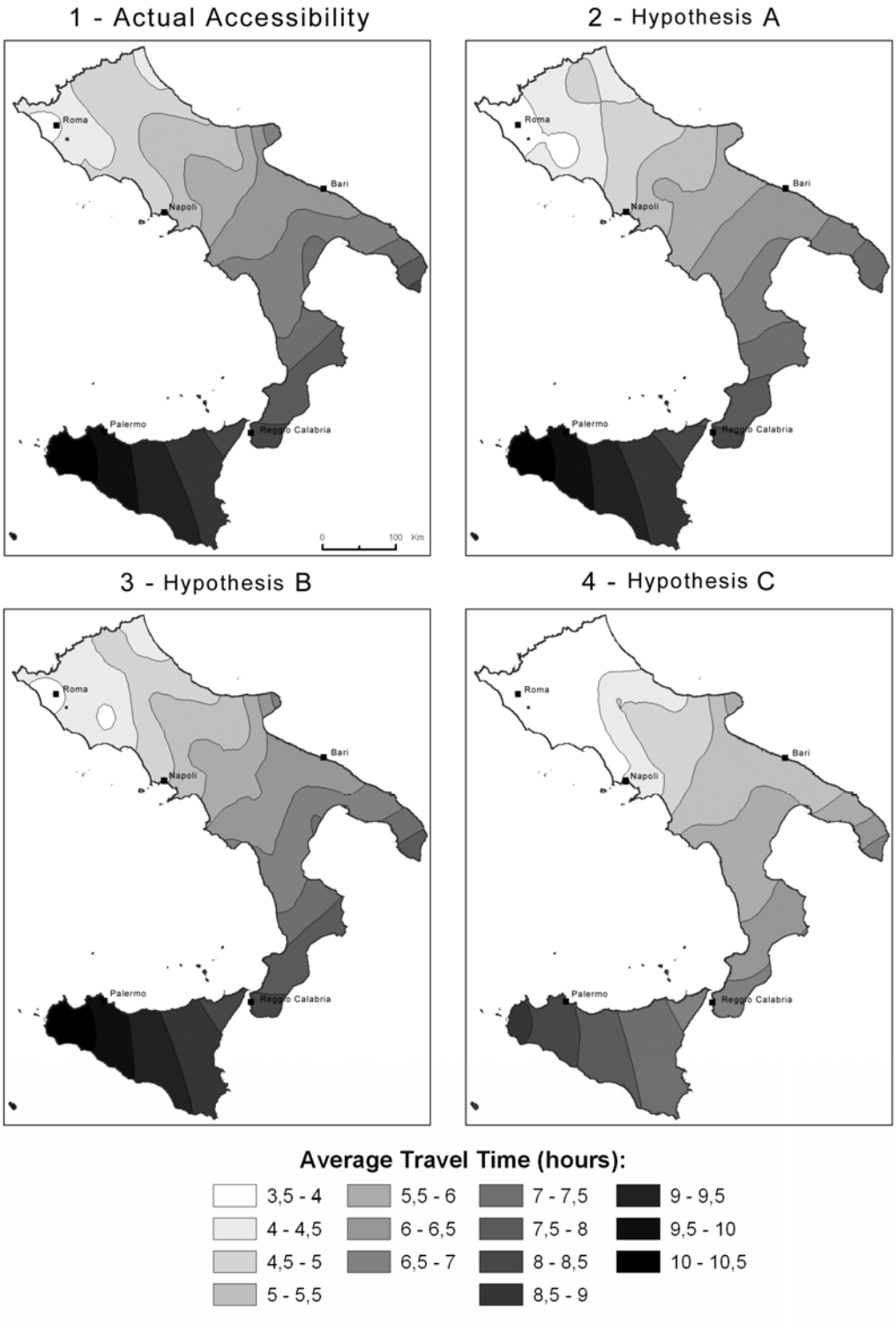
The improvement of the primary road network through his conversion in high speed freeways (hypothesis A in figure 4).

The construction of an airport in each destination (hypothesis B in figure 4).

A policy that discourages the use of car in favour of air travels (the hypothesis C in figure 4)1.

[1] The hypotesis is that the quote of tourists travelling by car decreases to 70% for domestic flows and 60% for foreign flows, in respect to actual 76% and 70%, as shown in table 1.

Fig.4 – Tourism accessibility and transport policy hypothesis



The construction of new highways per se, will have an influence on the distribution of flows which is limited - the model shows a reduction of less then half an hour in average travel-times - and differentiated: it would favour localities which are more sensible to accessibility and contribute to attract tourists with a lower expenditure propensity. The construction of airports will have an impact which is even lower. This is due to the limited number of tourists actually travelling by plane (see tab.1).

Tab. 1 – Passengers travels in Italy (%)

	Car	Train	Airplane	Other	Total
Total passengers (1998)	90,9	5,8	1,0	2,3	100,0
Domestic tourists (1998)	75,8	11,5	3,3	9,4	100,0
Foreign tourists (1996)	69,9	7,9	15,7	6,5	100,0

Source: ISTAT

6. The local dimension of accessibility

The three hypothesis are all unrealistic, as well as the indicators used to evaluate their impact. The model shows however how transport problems are complex and interrelated, and that the notion of distance is – at least – relative.

The main problem of Italian transport system is the prevalence of street movements over other modes of transport, as shown in table 1, which has in turn the consequences of increasing average travel-times, increasing congestion of road networks, pollution and so on. In this frame it is easy to demonstrate that the higher impact would come from a policy that discourages the use of car in favour of air travels (see hypothesis C in figure 4).

This prevalence has in turn many reasons - related to the historical process of Italian transport system development - that cannot be easily removed. In the case of tourism, transport choices are not only influenced by the need to reach the destination (global accessibility), but also and mostly by the need to move and to use the destination (local accessibility). The inadequacies of local mobility systems – the inadequacies of public transport, for example - has a great influence on the prevalence of car movements.

These complex and interrelated problems will not be solved – but rather exasperated – by an increase in the extension of the road network, as it is actually being programmed at the national level. It would be much more cost-effective to act at the regional level, discouraging street movements, increasing the capillarity

of local networks, improving public transport and opening the great number of airports which have been constructed in southern regions, but which are in many cases not operating.

In an era of globalization and in an information society, the same notion of distance should be reformulated, as it become relative and almost immaterial. Localities should not seek to increase accessibility and reduce physical distances. Rather, they should promote those endogenous resources that reduce the weight of accessibility to zero, and communicate the image of a tourism experience which is unique and easy to use.

REFERENCES

S. BARADARAN, F. RAMJERDI (2001), "Performance of Accessibility Measures in Europe", in *Journal of Transportation and Statistics*, Royal Institute of Technology

A.K COPUS. (1999), "Accessibility and Peripherality Indicators", in DETR, Peripherality and Spatial Planning (Interim Report), Scottish Agricultural College, Aberdeen

P. COSTA et al. (1996), "Accessibility, mobility conditions, and tourism development. The case of Southern Italy", in *Quaderni CISET-Università di Venezia*, n.12, pp.25-36

J.L. CROMPTON, S.-S. KIM (2001), "The Influence of Cognitive Distance in Vacation Choice", *Annals of Tourism Research*, Vol.28, No.2, pp.512–515

J. GUTTIEREZm P. URBANO (1996), "Accessibility in the European Union: The Impact of the Trans-European Road Network", in Journal of Transport Geography, n.4, pp.15-25

E. HOOVER (1948), The Location of Economic Activity, McGraw, NY

S. J. PAGE (1999), Transport and tourism, Harlow, Addison Wesley, Longman

S.L.J. SMITH (1997), Tourism Analysis, Harlow, Addison Wesley, Longman

K. SPIEKERMANN, J. NEUBAUER (2002), "European Accessibility and Peripherality: Concepts, Models and Indicators", in Nordregio Working Paper, n.9

R. VICKERMAN, K. SPIEKERMANN, M. WEGENER (1999), "Accessibility and economic development in Europe", in Regional Studies, n. 33, 1, pp.1-16

R. VICKERMANN (1995), "Location accessibility and regional development: the appraisal of trans-European networks", in Transport Policy, Vol.2, n.4, pp.225-234