# Regional-effects on entrepreneurial behaviours

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**Abstract**
Assuming that regional settings can provide an essential level of economic coordination that goes beyond firms' direct decisions and be a major source of region-specific material and non-material assets, this paper addresses the question of which kind of socio-economic regional-effects may explain different entrepreneurial behaviours?
Empirically, the analysis is based on a questionnaire application to a sample of 167 small and medium sized firms from textile, clothing and leather (TCL) sectors, and belonging to the following European Southern areas: North (Portugal), Valencia (Spain), Macedonia (Greece) and South Italy (Italy).
The selection of these regions was made considering their economic vulnerability, based on three major criteria: EU objective 1 status, being outside large urban centres and with an economic tissue based on labour-intensive firms.
A common questionnaire was applied in each region, allowing a cross-country analysis among regions whose economic dependence to labour intensive sectors, is a common threat.
Besides the strong commonalities among these four regional settings, it was possible to identify local/regional specificities that impact in the way firms respond to the new challenges coming from changing market conditions.

**Key Words:** labour-intensive industries, regional-effects, entrepreneurial behaviours.

## 1. The discovery of economic space – an overview

The neoclassical theoretical assumptions regarding high levels of factor mobility, spatial and economic convergence and low transaction costs enhancing efficient allocation of capital and labour between regions (namely in Europe) have been surpassed by the endogenous growth theories and, after that, by the new economic geography models (Gardiner, Martin and Tyler, 2004).

Endogenous growth theory or new growth theory was developed in the 1980s as a response to a criticism towards the neo-classical growth model. While, in the neoclassical growth models, the long-run rate of growth is exogenously determined, for the defenders of endogenous growth, arguments related to proactive action should be considered. In other words, growth is determined outside of the neoclassical model, generally by an assumed rate of technological progress and labour force growth. Not explaining the origin of growth, this model sounds unrealistic. Endogenous growth theorists tried to overcome this restriction by endogenizing the rate of technological progress. The crucial importance put in the production of new technologies and human capital, brings to firms and individuals an incentive to invent by exploiting advantages over competitors. A virtuous cycle arises through spillover mechanisms among economic agents.

Benko (1999) points out as one of the main failings of endogenous growth models the incapacity to explain non-convergence. Non-convergence has been detected in Europe in the southern European regions after the application of regional development funds (*e.g*. ERDF) for the last 30 years. As explained by Landabaso (1997) the success of any strategy of regional development depends on the capacity of the locals to absorb changes. The boundary between the policy measures for regional development and the real opportunities for transformation is limited. The many restrictions that are due to stakeholders often characterise regional reduced capacities and tenuous potential.

Not unrelated to the endogenous growth models, the new economic geography attribute regional differences in growth to localised increasing returns arising from the spatial agglomeration of specialised economic activities and the external economies and endogenous effects that such localised specialisation may generate. Krugman (1991a, 1991b), inspired in Marshall (1930) suggests that such effects are labour market pooling, technological spillovers and access to intermediate inputs.

Although largely neglected by mainstream economics until recently, the research on economic geography, or the study of where and why economic activity takes place, has drastically increased. As believed, the oblivion of space in economics was not because the disinterest in the subject, rather it was mainly attributed to the difficulties in the application of modelling techniques:

> *'Their new willingness to work on economic geography comes from their sense that new tools…have removed crucial technical barriers and transformed a once inhospitable field into fertile ground for theorists.' (Fujita, Krugman and Venables, 1999: 2)*

Krugman's geographical economics is firmly rooted in his contributions to the 'new trade theory'. Contrary to the assumptions of perfect competition and constant returns to scale, that underpin the basic Ricardian theory of comparative

advantage and trade, the new trade theory states that specialisation and trade are driven by increasing returns and economies of scale, rather by the capitalisation on inherent differences in national factor endowments. Also, according to this new view, specialisation is to some extend a historical accident: once a pattern of specialisation is established there is a strong tendency toward 'path dependence' as that pattern gets 'locked in' by the cumulative gains from trade (history matters, using Krugman's words). These developments facilitated the 'marriage' between trade theory and location theory. Krugman's geographical economics is a hybrid of the two: the interaction of external economies of scale with transport costs is the key to his explanation of regional industrial concentration and the formation of regional 'centres' and 'peripheries'. Fujita, Krugman and Venables (1999) gave a major contribute to the theory of economic geography by synthesising the three-way interaction among increasing returns, transportations costs and the mobility of productive factors. Further important and complementary contributions were offered by Brackman, Garretesen and Marrewijk (2001), Fujita and Thisse (2002) and Storper (2009).

This debate was amplified to strategic organization by the contributions of the Californian scholars, arguing that internal economies of scale and scope have been underestimated because of their major role in surpassing market uncertainty due to technological change. The response has been the horizontal and vertical disintegration, or an externalisation of production, enabling a greater flexibility towards the market changing conditions. In this view, agglomeration is a strategy since it facilitates transactional interactions and increase opportunities for matching needs and capabilities (Storper and Harrison, 1991; Scott and Storper, 1992). Yet, such transactions tend to fail in the absence of the appropriate institutions (Storper, 1995). Going beyond the initial Williamsonian framework[1], the authors argue that the nexus of transactions and their economic performance are themselves outcomes of broader institutional environments, and themselves generators of future choices for pathways of development (Storper, 1995)[2]. This line of reasoning, now well established in the literature on innovation in evolutionary economics, rejects the traditional notion of 'induced' innovation and focuses attention on the institutions which deliver up resources crucial to learning and interaction (Storper, 1996).

A core problem discussed by the Californian scholars is the long-standing tension between the geographical concentration of activity and specialization of regional economies and the spreading out of activity into wider geographical spaces, both of which are occurring in the current wave of globalization (Storper, 1999, 2000). The increasing importance of geographical proximity is, in such context, an important matter. In spite of increasing global flows of ideas, capital, goods and labour, this current of though confirmed that proximity in the creation of

[1] The new institutional economics started with Coase's article 'The nature of the firm' (1937). This mainstream was reintroduced by Williamson (1985, 1995) that adopted the transaction costs perspective for purposes of examining hierarchies and markets as alternative modes of governance.

[2] In deeply assessing Paul Krugman's contributions, Martin and Sunley (1996), pointed out the differences between Krugman's geographical economics and the new industrial approaches from the Californian school, namely regarding the treatment of industrial and market structure, the arguments on externalities and the analysis of nonmarket transactions and relations (what Storper (1995) would latter identify as 'untraded interdependencies').

economically-useful knowledge appears to be even more important than before (Scott *et al.*, 2001; Scott and Storper, 2003; Sonn and Storper, 2008). The concept of city-regions is used to explain the significance of the geographical concentration of activities, acting as key motors of the functioning of urban and regional economies (Scott *et al.*, 2001).

The role of regions in relationship to the global economy is still an open field of observation (Storper, 2009). As European integration proceeds and trade and factor flows increase, the role of locations have growing significance. While neoclassical models predict accelerating convergence, empirical evidence favours the arguments of those who believe in the tendency to spatial agglomeration and specialisation, leading to core-periphery *equilibrium/disequilibrium* and persistent regional differences in productivity.

Some authors remembered that the positive effects produced in these specialised territorial agglomerations are not guaranteed in the long run, as the continuous accumulation of knowledge could lock-in firms into non-competitive technological trajectories (Keeble and Wilkinson, 1999). If such happens, path dependencies are occurring. When a firm or group of local firms keep having increasing returns to scale from their production processes, a dependency to that particular accumulation path takes place, leading to what the author calls, the lock-in process. Rooted on the evolutionary model of growth of Nelson and Winter (1982), the concept was latter developed by Dosi *et al.* (1988), Arthur (1994) or Dosi (1997)[3]. The focus was put on the dynamics of markets under increasing returns in a path dependence situation, in particular the role of positive feedbacks in locking in a single dominant product, technology or company.

Nonetheless, some authors alert to the fact that, in the limit, firms are so closely tight to their accumulation processes that risk becoming vulnerable to unexpected changes in market conditions. The capacity to rapidly adapt to different but successful competing models may then, be compromised.

In order to avoid firm's lock in into obsolete technological trajectories, a critical issue is the continuous capacity to learn. This is a very common tendency, particularly in peripheral areas or labour-intensive industries. The scholars argue in favour of continuous learning, but do the firms have the capacity to continuous learn?

Camagni (1991, 1995) refers to the concept of networking as the channel trough which this risk of rigidity may be overcame. By accessing to other markets, assets and technologies, firms free themselves from the limits of local and internal competences and gain control over the technological trajectories of his competitors. Morgan (1996) defends the importance of interactive learning among business networks as the most effective and credible way for knowledge acquisition. The increasing emergence of collaboration phenomena testifies his argument.

The term 'untraded interdependencies' was used by Storper (1995) to define regionalized relationships that extend beyond traditional customer/supplier links (also referred as input-output linkages or traded interdependencies) and embrace

[3] Based on the same considerations, Antonelli (1997) applied the *percolation* methodology to the study of dynamic processes in economics, based upon the basic assumption that the behaviour of each agent is strictly determined by his/her local context of action.

formal and informal collaborative and information networks. Inspired in evolutionary economics this argument states that technological change is path dependent because it involves interdependencies between choices made over time. These choices have a spatial dimension, and though direct input-output relations may play a role, when organisations travel along a technological trajectory they have interdependencies that are *untraded* and include labour markets, conventions, common languages and rules. Those links are said to be in the basis of the ongoing resurgence of different patterns of regional growth, even facing globalisation and economic integration. With a similar view but a different conceptualisation, Cooke and Morgan (1998) reefer to a collective social order that induces firms to collaborate and display *'associational behaviours'*.
Although in the presence of such a wide range of theoretical conceptualisation, some common insight can be drawn: regional settings can provide an essential level of economic coordination and be a major source of region-specific material and non-material assets that could contribute to improve firm's performance (network collaborations, *untraded* interdependencies or *associational* behaviours are concepts supporting this idea).

## 2. Method

### *2.1. Conceptual framework and research hypotheses*

The literature revision presented a list of different, but yet complementary, theoretical approaches regarding the role that regional settings play in economic agents' behaviours: collective learning, path dependence, networking, untraded interdependencies or associational behaviours, are helpful and illuminating concepts.
That role is even more evident when considering small firms, which interact intensely with the territory where are located. In this sense, it is argued that the perspectives and strategic choices of small firms are not independent from the inputs supplied by the territorial institutional contexts, being the attributes of such environments a crucial factor for the development of entrepreneurship. Human capital, networking aptitudes and technological-related strategies are being considered to represent entrepreneurial behaviours. Table 1 provides the list of variables selected to represent these three components.
Assuming the importance of regional settings as sources of region-specific assets, this paper addresses the question of which kind of socio-economic regional-effects may explain different entrepreneurial behaviours?

Table 1
Description of database variables

| Variable | Description | Codification |
|---|---|---|
| | ***Human Capital*** | |
| **EMPLS** | **Employment Sources** | |
| EMPLSa) | Family members | 1=yes; 0=no |
| EMPLSb) | Local community | 1=yes; 0=no |
| EMPLSc) | People from outside the region | 1=yes; 0=no |
| EMPLSd**)** | Parent firm | 1=yes; 0=no |
| **SKILL** | **Skills' upgrading of employees** | 1=yes; 0=no |
| **△NSKILL** | **Variation in the need for adequately skilled employees** | 1=yes; 0=no |
| | ***Networking Aptitudes*** | |
| **NET** | **Supply, distribution and customers networks** | |
| NETSa) | Suppliers: associated local firms | 1=yes; 0=no |
| NETSb) | Suppliers: other local/regional firms | 1=yes; 0=no |
| NETSc) | Suppliers: national firms | 1=yes; 0=no |
| NETSd) | Suppliers: EU firms | 1=yes; 0=no |
| NETSe) | Suppliers: international firms | 1=yes; 0=no |
| NETDa) | Distributors: associated local firms | 1=yes; 0=no |
| NETDb) | Distributors: other local/regional firms | 1=yes; 0=no |
| NETDc) | Distributors: national firms | 1=yes; 0=no |
| NETDd) | Distributors: EU firms | 1=yes; 0=no |
| NETDe) | Distributors: international | 1=yes; 0=no |
| NETCa) | Customers: local/regional market | 1=yes; 0=no |
| NETCb) | Customers: national market | 1=yes; 0=no |
| NETCc) | Customers: EU market | 1=yes; 0=no |
| NETCd) | Customers: international market | 1=yes; 0=no |
| **LINK** | **Institutional links** | |
| LINKa) | Internal personnel | 1=yes; 0=no |
| LINKb) | Customers | 1=yes; 0=no |
| LINKc) | Suppliers | 1=yes; 0=no |
| LINKd) | Industry associations | 1=yes; 0=no |
| LINKe) | Universities and/or colleges | 1=yes; 0=no |
| | ***Technological-Related Strategies*** | |
| **INV** | **Investments** | |
| INVa) | a) New plant and equipment | 1=yes; 0=no |
| INVb) | b) Information technology | 1=yes; 0=no |
| INVc) | c) Purchase of patents and licensing | 1=yes; 0=no |
| INVd) | d) Development of existing products | 1=yes; 0=no |
| INVe) | e) Development of new products | 1=yes; 0=no |
| **TECH** | **Adoption of technological changes** | 1=yes; 0=no |
| **ATECH** | **Type of Adopted Technologies** | |
| ATECHa) | a) Inventory control (e.g. PCs, software etc.) | 1=yes; 0=no |
| ATECHb) | b) Production process technology (e.g. CAM) | 1=yes; 0=no |
| ATECHc) | c) Product design technology (e.g. CAD) | 1=yes; 0=no |
| ATECHd) | d) Marketing technology (e.g. internet, web sites, etc.) | 1=yes; 0=no |
| ATECHe) | e) E-mail / Web site/ Internet | 1=yes; 0=no |
| ATECHf) | f) Business to business electronic networks | 1=yes; 0=no |

Source: Author's elaboration

In agreement, the following research hypotheses are proposed so the research question proposed can be properly answered:

*H1: The sources of employees vary within different territorial settings.*
*H2: The skills' upgrading varies within different territorial settings.*
*H3: The demand for adequately skilled employees varies within different territorial settings.*
*H4: The scope and geography of firms' networks vary within different territorial settings.*
*H5: The nature of institutional links as sources of technological learning varies within different territorial settings.*
*H6: The type of investments made vary within different territorial settings.*
*H7: The adoption of new technologies varies within different territorial settings.*
*H8: The type of technologies adopted varies within different territorial settings.*

The following statistical exercise tests the regional-effects on these variables.

### *2.2 Sampling*

Empirically, the analysis is based on the application of a common questionnaire to a sample of 167 SMEs from the TCL sectors (Table 2) belonging to the following southern European areas: North (Portugal), Valencia (Spain), Macedonia (Greece), and South Italy (Italy).
These areas are composed of one or more Nomenclature of Units for Territorial Statistics (NUTS) II regions and were selected because of their economic vulnerability established in three common features: a) these areas are lagging behind the EU-27 average in terms of gross domestic product (GDP) per capita; b) their heavy industrial tissues are mainly composed of labour-intensive activities, the ones most affected by low-wage competition; and c) their peripheral geographic location constitutes an economic restraint. The sampling exercise is presented in detail in appendix 1.

Table 2
Sample distribution by focus area and sector

| | **Footwear and Leather Products** | **Textiles and clothes** | **Total** |
|---|---|---|---|
| North, Portugal (PT) | 14 | 52 | 66 |
| Macedonia, Greece (GR) | 14 | 36 | 50 |
| South Italy (IT) | - | 24 | 24 |
| Valencia, Spain (SP) | 15 | 12 | 27 |
| **Total** | **43** | **124** | **167** |

Source: Authors' elaboration.

### *2.3 Statistical data and methodology*

In order to empirically test the regional-effects on firms' decisions, the results for the list of variables presented in table 1, are compared among the four Southern European areas already presented: North Portugal, Valencia, South Italy an Greek Macedonia.

Although these four regions coincide with four different countries, the reference to regional-effects is still employed, as the broader European territory is being taken as unit. Country specificities, although not subject of closer attention, are not, nevertheless, being ignored.

Given the categorical nature of the database variables, association measures were used in order to test if differences in entrepreneurial behaviours belonging to the different regions are statistically significant (or not).

The database variables were cross tabulated with the regional area of the sampled firms. Cross tabulations are useful for summarizing categorical variables, such as the ones used in the present exercise (mostly nominal variables). The chi-square statistic ($\chi^2$) is used to test the hypothesis that the variables are independent. A low significance value ($p<0.01$) indicates that there is some relationship between the two variables. The analysis of residuals and the Cramer's V statistic is used to give additional information on the direction and strength of the relationship.

## 3. Results

Table 3 summarises the $\chi^2$, the Cramer's V and their significances. The rule of thumb that 80% of cells should have a count of 5 or more and no cells should have a zero count was used as reference.

The chi-square results allow identifying variables that are not independent from the location of firms. The observation of Cramer's V allows determining the strengths of that association, while the adjusted residuals were used to interpret the non-independence of data.

Having in mind these results and regarding the proposed research hypothesis, the null hypothesis that those variables related to firms' networking capabilities, human capital' choices and technological-related strategies are independent from the region where firms are located, is rejected ($p<0.01$) at least for one of the variables' categories.

## 4. Discussion

Besides the similarities among the areas and sectors considered, several regional effects were found among the entrepreneurial behaviours of the sampled firms. This can be attributed to local specificities and synergies driving competitive strategies of small firms. While some results are quite obvious, others are more important and interesting.

For example, the use of people from outside the region as a source of employment is regional specific, registering the higher level of association with the location of firms (V=0.492). By observing the adjusted residuals' values it is possible to identify the source of this non independence: there is a positive significant difference for Valencia and a negative one for the Portuguese North region. In the sample, 70.4% of the Spanish firms employed people from outside the region,

while only 9.1% of the Portuguese firms did it. Given that this difference cannot be attributed to lower geographic distances among Spanish regions, this behaviour can be explained by regionally specific characteristics, such as the higher labour specialisation in the Portuguese region.

Table 3

$\chi^2$ Statistics results

**(**Testing $H_0$ : variables are independent from firm' location)

| Variable | $\chi^2$ | V | Level of significance |
|---|---|---|---|
| Employment Sources - Family members | 5.996 | 0.189 | 0.112 |
| Employment Sources - Local community | 5.098[a)] | 0.175 | 0.165 |
| Employment Sources - People from outside the region | 40.498 | **0.492** | **0.000** |
| Employment Sources - Parent firm | 1.514 [a)] | 0.095 | 0.679 |
| Suppliers - associated local firms | 9.189 | 0.235 | 0.027 |
| Suppliers - other local/regional firms | 23.062 | **0.373** | **0.000** |
| Suppliers - national firms | 15.451 | **0.304** | **0.001** |
| Suppliers - EU firms | 6.508 | 0.197 | 0.089 |
| Suppliers - international firms | 10.069 | 0.246 | 0.018 |
| Distributors - associated local firms | 14.090 [a)] | **0.303** | **0.003** |
| Distributors - other local/regional firms | 4.344 | 0.168 | 0.227 |
| Distributors - national firms | 8.246 | 0.232 | 0.041 |
| Distributors - EU firms | 5.639 | 0.192 | 0.131 |
| Distributors - international firms | 7.128 [a)] | 0.216 | 0.068 |
| Customers - local/regional market | 18.049 | **0.329** | **0.000** |
| Customers - national market | 10.278 | 0.248 | 0.016 |
| Customers - EU market | 3.875 | 0.152 | 0.275 |
| Customers - international | 9.069 | 0.233 | 0.028 |
| Institutional links as sources of tech. learning - Internal personnel | 10.475 | 0.250 | 0.015 |
| Institutional links as sources of tech. learning - Customers | 16.826 | **0.317** | **0.001** |
| Institutional links as sources of tech. learning - Suppliers | 7.661 | 0.214 | 0.054 |
| Institutional links as sources of tech. learning - Industry associations | 23.523 | **0.375** | **0.000** |
| Institutional links as sources of tech. learning - Universities/Colleges | 36.979 [a)] | **0.471** | **0.000** |
| Skills upgrading of employees | 20.821 | **0.354** | **0.000** |
| Investments - New plant and equipment | 10.830 | 0.255 | 0.013 |
| Investments - Information technology | 7.408 | 0.211 | 0.060 |
| Investments - Purchase of patents and licensing | 7.749 [a)] | 0.215 | 0.051 |
| Investments - Development of existing products | 13.498 | **0.284** | **0.004** |
| Investments - Development of new products | 20.740 | **0.352** | **0.000** |
| Variation in the need for adequately skilled employees | 39.392 | **0.344** | **0.000** |
| Adoption of technological changes | 15.597 | **0.306** | **0.001** |
| Type of Adopted Technologies - Inventory control (e.g. PCs, software etc.) | 16.756 | **0.318** | **0.001** |
| Type of Adopted Technologies - Production process technology (e.g. CAM) | 13.225 | **0.281** | **0.004** |
| Type of Adopted Technologies - Product design technology (e.g. CAD) | 7.460 | 0.211 | 0.059 |
| Type of Adopted Technologies - Marketing technology (e.g. internet, websites) | 20.458 | **0.351** | **0.000** |
| Type of Adopted Technologies - E-mail / Web site/ Internet | 24.724 | **0.385** | **0.000** |
| Type of Adopted Technologies - Business to business electronic networks | 7.174 [a)] | 0.207 | 0.067 |

Source: Author's elaboration

a) Inadequate cell count: more 20% of cells have expected count less than 5

Levels of significance: **99%, *95%

The second highest association comes from the development of institutional links with Universities/Colleges as sources of technological learning[4] (V=0.471). Also

[4] This variable is signed as having as inadequate cell count, considering the rule of thumb of 20% of cells with expected count less than 5. Given that this rule is being barely violated (25%) and considering the importance of the variable for the conclusions, the results are being considered for the analysis.

the links with industry associations are regional-specific, although in this case the association is weaker (V=0.375). This is also an interesting and important result, as it indicates firms' aptitudes to learn on the basis of synergies and interactions with local agents. It also indicates the capacity of such agents to interact with firms and respond to their needs. This learning process can be collective, using Capello's words (1999a, 1999b) if it is *cumulative* (persisting over time) and *interactive* (transferred among agents). In this case, regional differences are due to the positive results of Spanish firms, with high levels of interaction among the mentioned agents, and to the negative results of the Portuguese ones.

Another regional dependent indicator (with V= 0.354) related to, not the capacity to learn, but to the awareness to engage in learning activities, is the skills' upgrading of employees. Again the same regional differences were found in this indicator regarding the Spanish firms - all the inquired firms responded positively to this question, and the Portuguese firms - only 60% of the samples firms upgraded its workforce skills, which represent a lower proportion when compared with the other regions.

The use of local/regional firms as suppliers also varies among regions (V=0.373). This variable can be used as an indicator of the local network density of TCL industry. The presence of a dense production system, ranging from the upstream to the downstream production activities, is an important channel trough which firms can access to other markets, assets and technologies, and overcome the limits of internal competences. As Morgan (1996) argues, the importance of interactive learning among business networks is the most effective and credible way for knowledge acquisition. In this sample, regional differences come from the lower results of the Greek firms and the higher results of the Portuguese ones, with a large proportion of firms using local/regional suppliers (81.5%). Regarding the use of national suppliers, significant differences (with V=0.304) are also found among the group, with 100% of the Italian firms using national suppliers.

The use of local/regional firms as customers also significantly varies in the group (V=0.329), due to the lower proportion of Greek firms (38%) using the local/regional markets as their sales destination. These firms were also the ones that mostly registered the use of national and European customers as sources of technological learning, against the links with local/regional agents.

Another group of variables non independent from location is the type of technologies adopted by firms. The adoption of internet tools (V= 0.385), new marketing technologies (V=0.351) and inventory control tools (V=0.318) are all regional dependent. In this case, better results are found for the Spanish firms, while worse results are mostly found for the Greek firms. The same result occurs for the adoption of new technologies, regardless the type (V=0.306), and for the investments made in the development of new products (V=0.352). The need for adequately skilled employees is varying accordingly (V=0.344), with higher results being registered for the Spanish regions.

These results should provide basic insights for future studies, where a closer analysis of these territories might allow a better understanding of the functioning of the local governance structures, whether formal or informal.

In answering the research question proposed, the differences found can be summarised in the following regional profiles:

- TCL firms located in Valencia, Spain, registered higher aptitude to engage in learning activities, with good results at the technological adjustment capacity;
- TCL firms located in North Portugal, belong to a more closed, vertically concentrated and specialised industrial system;
- TCL firms located in Greek Macedonia revealed higher fragilities in terms of investments in new products, but also reveal higher opening to external relationships;
- TCL firms located in South Italy registered positive results in terms of technological advances, although not so good when compared with the Spanish region. The institutional links developed as sources of technological knowledge were also weaker in comparison with Valencia. The industrial system is not as closed as the Portuguese one, being the national level preferred against the local/regional one.

It is also interesting to understand the behaviours that are not regional dependent. For example, the use of family members or local community' members as sources of employment is very similar among the set. Also, and given the common geographical position of the group, the use of European suppliers, distributors or customers does not vary significantly. The tendency to use suppliers as sources of technological knowledge is also a common feature of this group, given the supplier-dominated characteristics of TCL industries. Nevertheless, besides the strong commonalities among these four regional settings, in what concerns textiles, clothes and leather industries, there are still local/regional specificities that impact in the way firms respond to the new challenges coming from changing market conditions.

These results emphasize the role of national and European institutions in defining specific policy approaches to sectors dealing with increasing economic challenges, but mainly to regions sharing strong commonalities. In contrast with the more price-competitive plants in the north, there is a more customised and fashion-oriented industry, less vertically concentrated and less oriented to sourcing in low-cost countries, in Southern Europe.

## 5. Final remarks

Within a global economy, and rejecting the 'geography is death' thesis (Morgan, 2004) the localised capabilities (as labelled by Maskell and Malmberg, 1999) developed in the several forms of territorial agglomerations, are determinant assets for the promotion of firm and regional competitiveness. Different territories are characterised by different local resources endowments, institutional frameworks and social/cultural structures, promoting different levels of interaction between agents.

Also, the way economic agents take advantage of such local dynamics in order to learn and better react to the changing market conditions, is not innocuous for the territories themselves. Different absorptive capacities (as considered by Cohen and Levinthal, 1990) lead to different entrepreneurial strategies that produce important long term impacts on local settings. Decisions regarding the type and

level of investments, particularly the technological ones, and the corresponding effects on labour demand are appropriate examples.
The thematic is even more important when dealing with less favoured regions, where income and employment perspectives are very much dependent from the entrepreneurial initiatives carried out by economic agents.
In the present research close attention was given to four Southern European regions, characterised by their specialisation on labour-intensive industries.
On the grounds of this research analysis it is argued that regional vulnerability is related to regional specialisation and peripherality. Small labour-intensive firms of peripheral regions have limited resources to access information and assess market conditions. The economic exposure of these industries to low-cost competition as well as their tendency to spatial agglomeration strengthens the interest in such analysis.
Among the four regions observed, it was possible to identify several regional effects inducing the technological behaviours of the sampled firms. While firms from Valencia (Spain) registered higher aptitude to engage in learning activities, with correspondent results in the levels of technological capabilities, firms located in Macedonia (Greece) revealed fragilities that are compensated with an higher opening to external relationships, being the special strength of these regions their geographically and culturally location between Asia and Europe and its emphasis on traditional arts and craft textiles to a level that could even become an obstacle in a collaboration with more technologically developed countries (Perivoliotis, 2004).
Firms located in North (Portugal) belong to a more closed, vertically concentrated and specialised industrial system, while firms located in South Italy are less regionally concentrated and characterised by their creative power for new trends and styles, with a high quality image.
This research argues that different regional settings promote different levels of learning dynamics as much as those dynamics influence regional employment and income perspectives.
The results obtained in this research should provide basic insights for future studies, where a closer analysis of the selected territories might allow a better understanding of the functioning of the local governance structures, assessing their capacity to promote the necessary synergies and interactions among local agents.
For example, differences were found between the Portuguese and Spanish firms regarding the levels of local learning dynamics. While the Spanish firms in the sample developed strong institutional links with Universities/Colleges and industry associations as sources of technological learning, a weaker result was registered by the Portuguese firms. The reason behind this higher/lower aptitude of firms to learn on the basis of close interaction with other agents is an important field for future observation. It is also important to understand the different propensity levels of these local stakeholders to interact with firms and respond to their needs. Different historical research potentials on the textile-fashion industry chain may explain different pathways in these two regions. This is also an interesting field for future research.

For the Portuguese region in particular, the identification of success networking strategies among the complete value chain of these sectors, comprises an important benchmarking exercise for the future of the industry.

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## Appendix 1 – Sampling Procedures

The questionnaire used in the present research was designed, tested and applied in the scope of the EU FP5 Project RASTEI - Regional Adjustment Strategies to Technological Change in the Context of European Integration - HPSE-1999-00035.
This project aimed to study how local adjustment strategies designed to enhance productivity utilising technological change in labour-intensive industries has affected, and will affect in the future, European non-metropolitan regions in terms of their employment potential.
The results for the Greek, Italian and Spanish firms were generously provided by the project coordinator for the present research. The same questionnaire was applied to the Portuguese sample firms during 2005.
Using common questions and an agreed coding system, the data set allows for the pooling of data by question across a group of European southern regions.
It should be recognized that the results of the present research are dependent, certainly, upon the integrity of the survey instrument, the sampling procedures and the collection of the data in each country, as in every multi-team cross-country research. In the present research, the author assumes the responsibility for the Portuguese questionnaire application. Similar sampling procedures were applied by the other teams.

### Sampling exercise for the Portuguese region

The total number of 5916 small and medium sized firms (<250 employees) from CAE 17, 18 and 19 from Portugal North Region were considered as the target population. The data source is the FUE (*Ficheiro das Unidades Estatísticas*) from INE – *Instituto Nacional de Estatística.*
The sample was randomly selected, among the firms from the target population. The distribution among different regions and sectors was done proportionally.
A total amount of 722 questionnaires were distributed by RSF post during a 5 months period, followed by 217 phone contacts in order to supply complementary information and increase the final rate of answers. Finally, it was possible to come up with a final sample of 66 respondent firms, corresponding to a final answer rate of 18.3% regarding the initial planned sample (n=361). As mentioned by Vicente et al. (1996), the representativity of a sample is not a matter of its dimension, rather is a matter of whether the non-respondents' answers differ or not from the respondents' ones. Since it's expected that the non-answers are mainly due to the entrepreneurs' lack of availability and awareness regarding the cooperation in this sort of research initiatives, it is assumed that the non-respondents' opinions do not bias the representativity of the final sample.