

TERRITORY, COMPETITIVENESS AND SUSTAINABLE GROWTH: THE CASE OF THE ITALIAN MEDIUM-SIZED MANUFACTURING FIRMS

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1. Introduction

Since the financial crisis, economic thinking has been paying increasing attention to well-being and sustainable development (Stiglitz *et al.*, 2009; European Commission, 2009; OECD 2011; United Nations, 2018; for Italy, see e.g. Rinaldi and Zelli, 2014; ISTAT Italian National Institute of Statistics, 2017). While many studies have addressed the matter at a macroeconomic level (for a literature survey, see, e.g., Bleys, 2012) or are based on territorial indicators (for Italy, e.g. Dallara and Rizzi, 2012; ISTAT, 2017), there are few microeconomic analyses on firms' behavior (ISTAT, 2018). For some time the literature has investigated firms' competitiveness with the finding that one of the key development factors is the relationship between the firm and the community where it operates: starting with Marshall's studies and – focusing on Italian industrial districts – with Becattini and other many scholars (e.g. Becattini, 1979, 1990, 2009; Becattini and Rullani, 1993; Brusco, 1994; Garofoli, 1994, Becchetti and Rossi, 2000). More recently, one firm-level study confirmed that the link with the territory in terms of culture-related production has positive effects on economic performance measured by export increases (Pini, 2017).

This paper examines whether the “territory”, i.e. “firm-territorial community” relationship, is a key factor in competitiveness from a sustainability point of view. We considered not only economic performance but also the behavior regarding environmental and social sustainability. The analysis exploited a survey conducted in 2017 on a sample of 500 Italian medium-sized manufacturing enterprises.

Overall the results provide evidence of a positive “territory effect” on the sustainable growth of an enterprise. The remainder of the paper is structured as follows. Section 2 presents the related literature. Section 3 illustrates the data and the empirical methodology. Section 4 presents the results. Section 5 contains a discussion of some of the policy implications.

2. Literature review

This paper is related to the role of the territory in relation to a firm's competitiveness seen from the point of view of sustainability providing a competitive edge. Marshall's pioneering studies regarding «industrial atmosphere» noted that industry is concentrated where there is cooperation, trusty networks and tacit knowledge, culture and tradition, few information asymmetries (Marshall, 1919, 1920). Thus, the territory becomes a single and inimitable space (Porter, 1990; Rullani, 1999).

Italian scholars have recognised that the territory – analyzed from the point of view of industrial districts – becomes a competitive element for SMEs (e.g. Becattini, 1979, 1990; Becattini and Rullani, 1993; Brusco, 1994; Garofoli, 1994; Becchetti and Rossi, 2000). International institutions (OECD, 2001; European Commission, 2005) have started to consider the territory as a form of capital, using the term «territorial capital». This concept has also been defined by Camagni (2009).

The importance of the territory has been highlighted by the concept of the «milieu innovateur» which underlines two important features of the local dimension: *geographical proximity* and *socio-cultural proximity* (Aydalot 1986; Camagni 1991; Ratti *et al.*, 1997; Camagni, Capello, 2002). This latter dimension means shared behavior models, trust, common moral codes, from which social capital develops. Indeed, social capital is powered by relationships between the actors living in the community (Colemann, 1988; Putnam, 1993; Fukuyama, 2000); thus it is strongly connected to relational capital (Camagni, 1999; Camagni and Capello, 2002; Migheli, 2011). The community is formed when all actors pursue the common good, promoting an ethical and sustainable development beyond the pure market rules (Courlet, 2003; Mastroberardino *et al.*, 2012) based solely on profit¹.

According to Becattini (1989, 2007) the “firm-community” relationship is the key factor in competitiveness. Recently, firm-level studies in Italy found that firms linked to the territory are more competitive on foreign markets (Pini, 2017), together with those based on CSR principles and relational capital (Ferri *et al.*, 2017).

¹ In this respect, Freeman (1984) highlighted the importance of the well-being maximization - the main asset of the Corporate Social Responsibility - instead of the profit maximization. Edelman (2012) underlined that in many advanced countries the majority of the population does not agree with the concept that the firms must only pursue the profit: especially in Italy, Germany, Spain and France

3. Data and empirical strategy

3.1. Data

The main data source was a survey carried out by Unioncamere (the Italian Union of Chambers of Commerce) in early 2017. The data refer to a statistically representative sample of 500 Italian medium-sized manufacturing firms (50-499 employees with a turnover of between 15 million and 330 million euros). The reference universe amounts to 3,376 enterprises. The firms in the sample represent 15% of the universe in terms of both population and employees. The dataset was enriched with balance sheet data through a record linkage with AIDA data source.

3.2. Measurements

3.2.1 Sustainable Growth

The literature has increasingly investigated competitiveness from the sustainable development point of view: not only of economic growth but also value creation for enterprises, shareholders and customers; capacity to generate employment levels on a sustainable basis; ensuring the long-term growth of living standards and prosperity for people; and resource efficiency through green technologies (OECD, 2010; see also e.g. Audronė Balkyte and Tvaronavičiene, 2010). All these issues belonging to Corporate Social Responsibility (CSR) (Freeman, 1984) involving also the relationships between “firm-local community-common goods” (Bruni and Zamagni, 2015; Venturi and Zandonai, 2016). ISTAT (2018) analyzed sustainable development considering several factors at the firm level: social effects of business activities; stakeholder value creation; supply-chain value; environmental impact reduction and circular economy; and long-term vision.

In line with this framework, we constructed the variable «sustainable growth» (*Sustainable growth_I*) which captures a firm’s behavior related to economic growth connected to non-profit maximization, environmental and social sustainability. It consists in a dummy variable that takes a value 1 if the firm has an increased turnover without reducing employment (with reference to the entire 3-year period 2015-2017), invests in environmental efficiency and is engaged in non-profit activities (namely it directly creates or contributes to non-profit activities). In order to check for robustness, we constructed a second variable measuring sustainable development which indicates whether a firm registers an increased turnover (for the same period above specified) and states socio-economic wealth and environmental sustainability among its business missions rather than profit maximization (*Sustainable growth_II*).

3.2.1 Firms' connection with the territory

To define the territory as an indicator we used firms' answers to two questions in the survey: «Why does your company not delocalize production abroad?». The second question, with reference to firms that have relationships with other firms, universities, etc. is «Where is the location of the entities with whom the company has a relationship?». This second question aims to strengthen the concept of relational capital within the community. We constructed a dummy variable (*Territory*) taking the value 1 if the firm answers «Connection with the firms and the community where the company operates» to the first question² or «In proximity to the company (province, district area)» to the second question. To check for robustness, we used another dummy variable (*Delocalization*) with the opposite meaning in terms of the firm investing in factories abroad, as a proxy of the delocalization process.

3.2.3 Other variables

We discuss other independent variables included in the regressions. To account for the fact that a business group may affect the firm's performance (see, e.g., Carney *et al.*, 2011), we added a control for belonging to a business group (*Business group*). To capture the impact of quality on competitiveness (more recently, Costa and Lucchetti, 2015), we included a variable (*Quality*) indicating whether the firm recognizes the quality of goods produced as its competitive advantage rather than low prices policies. Moreover, we included two dummy variables: the first one if the firm exports (*Export*); the second one, which is more specific and related to the local culture of production, if the firm is competitive in foreign markets thanks to being *Made in Italy* (according to the firm's statement) (*Export Made in Italy*).

We also included a binary variable if the firm is innovative (*Process innovation*) given that the relationship between these two indicators has long been studied (see, e.g., Hashi and Stojčić, 2013). In the light of recent thinking and analyses on the relationships between competitiveness, sustainable-inclusive development and productivity (ISTAT, 2018), we included labor productivity using the added value per employee (*Log(Productivity)*). Many scholars have underlined that human capital is a driver of a firm's performance (for a review see Marimuth *et al.*, 2009). We thus inserted a dummy variable (*Skill*) for whether the firm runs

² We precise that the questionnaire faces many reasons regarding the no-delocalization choice: the lack of financial resources or excessive expenses for moving; the lack of information related to regulation in the foreign country; too little business size; past negative experiences, etc.

training courses for employees. Finally, we also controlled for age, location (three area fixed effects: north-west; north-east; south), size (using logarithm of total asset), and economic sector (three sectors fixed effects: food; personal goods; mechanical).

3.3. Empirical model

To analyze the “territory effect” on sustainable growth, we used a probit model since the dependent variable is binary taking only values of 1 and 0.

$$P(Y_i = 1|T_i, S_i) = \Phi(\beta_0 + \beta_1 T_i + \beta_2 S_i) \quad (1)$$

where Y_i represents the probability that firm i records sustainable growth, namely increased turnover without reducing employment, making green investments and engaging in non-profit activities (*Sustainable growth_I*) (Model 1, 3, 4). In the robustness check (Model 2) Y_i represents the probability that firm i records an increased turnover with socio-economic wealth and the environmental sustainability among its tasks (*Sustainable growth_II*). Φ is a standard normal cumulative function. The independent variables include: T_i measures the “territory factor” (a binary variable that equals one if the firm has connections with the local community (*Territory*)); S_i a vector including the other independent variables. All variables are binary except for productivity, total asset and age. Stata version 13 was used for all the estimates.

3.4 Summary statistics

More than three-quarters of the firms are located in the north of Italy (north-west 41% and north-east 38%). The firms are largely concentrated in the mechanical sector (38.0%), in comparison to personal goods and food (21.2% and 14.2%, respectively). Around 20% of firms reported as having a connection with the territorial community where they operate; while 10.8% of firms invested in factories abroad. Finally, regarding the dependent variables, around 10% of firms achieve sustainable growth (according to both measurements). Process innovation and export are activities widely used (respectively 65% and 90%). A large part of the firms invests in improving skills through training courses (44.4%).

Correlation coefficients between the main independent variables are very low (ranging from -0.045 and 0.153) indicating that multicollinearity is not a major issue (because of space constraints we don't report the tables of summary statistics and correlation matrix; however, they are available upon request).

4. Results

Table 1 reports the results. Controlling for various characteristics of the firms, a positive relationship was found between the territory and sustainable development. The interlinking between the firm and the territorial community (*Territory*) has a positive and significant effect ($p < 0.1$) on sustainable growth (according to the first measurement *Sustainable growth_I*) with a marginal effect of 4.9% (Model 1). This outcome is confirmed by the robustness check using the second measurement of sustainable growth (*Sustainable growth_II*) as the dependent variable (Model 2). Also in this second case, the coefficient of *Territory* variable is positive with the same significant level ($p < 0.1$), associated with a marginal effect of 3.8%. These findings are strengthened by the fact that the production delocalization (*Delocalization*) does not significantly influence the sustainable growth in either of the two models (1 and 2).

The importance of the “firm-territory” relationship is confirmed by the findings regarding the analysis on internationalization. Overall the exporter status (*Export*) does not affect the probability of recording sustainable growth (Models 1-2). Only when the firm exports and it is linked to the community (*Territory*Export*) it is more likely to achieve sustainability development (the probability increases by 4.9%, $p < 0.1$) (Model 3). These outcomes support the idea that a territory-related production is a key competitiveness factor. This conjecture is confirmed by the fact that being a firm that exports with a focus on Made in Italy-related production appears to increase (marginal effect 7.0%; $p < 0.05$) the likelihood of achieving sustainable growth (Model 4).

Other factors that were found to positively influence sustainability development are the quality production and human capital. These are statistically significant at 1% (positive coefficient) in almost all models. Process innovation³ also positively affects sustainable growth as well as the labor productivity level ($p < 0.05$ except in model 2).

These outcomes support the idea that sustainable growth involves social factors – relational capital and CSR principles – as well as economic factors such as innovation and technological investments. In fact, today customers are increasingly focusing on many aspects related to the place and methods of production that respect ethical values and the environment.

³ We tested product innovation as well, without finding significance results. Even for this reason we chose to include in the models only the process innovation.

5. Conclusions

In the light of recent economic thinking regarding the need for new growth models based on respect for social and environmental values, this paper investigated the role of the territory – in terms of the “firm-territorial community” relationship – in sustainable development. The literature suggests that territory is a key factor for competitiveness, which in the past has been analyzed more from an economic rather than a sustainability point of view.

We found that firms linked to the community are more likely to achieve sustainable growth. This finding was shown to be robust by using different measurements of sustainable growth as well as different proxy variables regarding the “territory factor”. The results also highlight that innovation, quality and skills are other important determinants.

Policy implications thus relate to the importance of place-based (micro-territorial) policies (Dileo and Losurdo, 2011), in order to sustain the «territorial capital». This means encouraging, in each area, the formation of an efficient socio-economic system where firms are strongly connected with the local area. Connection in terms of: local culture-related production based on know-how and quality production thanks also to innovation activities; relationships between the firm and the local actors such as other firms, non-profit organizations, employees and families, following CSR principles.

Policies should thus concentrate on protecting Italian production, by: strengthening quality, territorial and CSR certifications; promoting profit/non-profit relationships; and supporting firms’ competitiveness.

Future research could be developed in several directions. First of all, caution is needed in interpreting the cross sectional analysis with reference to cause-effect mechanisms. An analysis based on firm panel data might be useful. Moreover, the fact that we only focused on medium-sized enterprises and on one specific sector (manufacturing) underlines the need to test the “territory effect” on sustainable growth for a wider sample. Having a larger sample would be useful in order to pinpoint any differences between different sectors as well as between different business’ sizes in Italy. Finally, the measurement of sustainable growth at a firm level adopted in this study could appear subject, even though in reality there is still no full agreement on this topic.

Appendix

Table 1 – Results.

	SG_I (1)	SG_II (2)	SG_I (3)	SG_I (4)
Territory	0.049* (0.028)	0.038* (0.022)		
Delocalization	0.037 (0.035)	0.019 (0.030)	0.035 (0.035)	0.037 (0.035)
Process innovation	0.066** (0.028)	0.022 (0.022)	0.062** (0.028)	0.059** (0.028)
Log(Productivity)	0.077** (0.034)	0.022 (0.028)	0.076** (0.034)	0.082** (0.035)
Quality	0.122*** (0.031)	0.040* (0.025)	0.118*** (0.030)	0.115*** (0.030)
Human capital	0.069*** (0.024)	0.040** (0.020)	0.071*** (0.024)	0.072*** (0.024)
Export	-0.034 (0.042)	0.022 (0.040)		
Territory*Export			0.049* (0.029)	
Export Made in Italy				0.070** (0.032)
Pseudo R ²	0.151	0.098	0.149	0.154
No. Obs	500	500	500	500

*Note: (a) SG=Sustainable growth; (b) Because of space constraints the table reports only the coefficients of the main variables. Non-reported controls include: firm age; business group dummy; size (logarithm of asset), location and economic sector fixed effects. (c) Dependent variable is reported in the title of the column. (d) The table reports regressions marginal effects. (e) Standard errors are in parentheses. (e) *** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$.*

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SUMMARY

Territory, Competitiveness and Sustainable Growth: The Case of the Italian Medium-Sized Manufacturing Firms

The territory has been recognised as a type of capital in which people set up a community where tradition, culture, competencies create an industrial atmosphere, i.e. the relationship between territory, competitiveness and social cohesion thanks to solidarity, trust, quality production, and cooperation. Recently, as part of the long tradition of studies on industrial districts, there have been a few empirical analyses at the firm level on territorial capital in relation to the sustainable development.

The aim of this paper is to examine whether the “territory” affects firm’s sustainable growth by answering this question: do firms that are more linked to the territory where they operate, show a better economic sustainable performance?

The analysis was based on a sample of 500 Italian medium-sized manufacturing enterprises (statistically representative of the reference universe of 3,376 units) using probit models.

The results suggest that firms that have a strong connection to the territorial community and cooperate with local actors (other firms, non-profit institutions, stakeholders, etc.) have a higher probability of achieving sustainable growth. This last indicator was measured by a combination of all three of the following achievements: positive economic results (increase in turnover); environmental protection (green investments); positive social impact (no reduction in employees, contribution to non-profit activities).

We also carried out robustness checks. The results confirm the positive and significant relationship between the territory and sustainable economic growth. Finally, the policy implications are discussed.