Company performance of Italian industrial districts

Summary

October 2010

Student: Jeroen van 't Hooft

Supervisor: Dr. Sandra Phlippen

Student: Floor van der Wind

Supervisor: Prof. Dr. Ron Boschma

Department of Applied Economics

Section of Economic Geography

ERASMUS UNIVERSITEIT ROTTERDAM

Universiteit Utrecht

Abstract
The existence of industrial districts forms a characteristic property of the Italian economy and has significantly contributed to the economic development and prosperity of postwar Italy. Especially since the 1970's, industrial districts have been extensively studied by scholars from various academic disciplines, creating a wide body of theoretical and descriptive literature. Attempts to quantify distinctive aspects of industrial districts, however, remain scarce.

This research uses company level financial accounting data to measure the 'district effect' by comparing performance indicators of 1'165 companies from the Italian footwear sector belonging to industrial districts to those of isolated companies. In addition, the outcome of a series of 29 in-depth interviews held with entrepreneurs, senior managers, and experts allows for a qualitative interpretation and enrichment of the quantitative analysis.

This research concludes that footwear producing companies located in Italian industrial districts outperform isolated companies on all three considered performance indicators. The observed performance differential is attributed to a higher degree of specialization among industrial district companies. Other factors considered by this research, however, do not distinctly explain observed performance differences.

Keywords: economic geography, industrial districts, industrial organization, agglomeration economies, transaction costs economics

Introduction

Since early days, the location of economic activity across the geographical space has welcomed a profound interest from researchers of different academic disciplines. Recently, the field of economic geography has regained particular attention, especially through the work of 2008 Nobel Prize laureate Paul Krugman, which unifies the previously disparate research fields of international trade and economic geography. Within the field of economic geography, agglomeration economies have been thoroughly studied. Positive agglomeration economies refer to various sorts of savings or benefits derived from the clustering of activities external to the company and are kinds of positive externalities. An example of clustering of economic activities takes place in so called industrial districts (Becattini, 1990), which are the main interest of present research.

The economic miracle of Italy in the 1970's, during which small and medium sized enterprises (SMEs) started contributing substantially to the economic development and welfare in Italy, has initiated a large stream of theoretical work focusing on the competitive advantages of being located in industrial districts (Becattini, 1990; Sforzi, 2002).
The potential benefits of the agglomeration of companies in IIDs are believed to lead to superior performance and higher income for the inhabitants of such areas (Becattini, 1990). However, recent authors have started questioning the superior performance of IIDs. For example, it is argued that IIDs' performance depends on different factors, which are not fully integrated in the current theory on IIDs. Despite the large existing body of literature concerning IIDs, there is not much empirical evidence related to explanations for performance of companies located in IIDs.
This study tries to provide an answer to the question how the performance of companies in IIDs relates to its non-district counterparts. In addition, it explores factors that contribute to the performance of companies active in IIDs. This leads to the following research question:

Do companies located in industrial districts outperform their non-district counterparts and why?

Relevance

Attempts to offer a measurement of the performance of IIDs on a comparative basis are still few (Paniccia, 1999). By assessing the performance of companies located in IIDs compared to companies located outside IIDs, this research contributes to the creation of such empirical measurement. The discussion about the performance industrial districts is relevant to a wide group of stakeholders including policy makers, entrepreneurs, managers, and employees. So far, stimulation of industrial districts is supposed being a beneficial policy tool for creating regional development and welfare. IIDs would serve as a 'best practice' model for supporting local development. However, recent studies indicate that the configuration of IIDs is not applicable to every single case and reality. The results of present study can contribute to the understanding of the origin of company performance in IIDs and its impact on the local territory. This is important to enable policy makers developing and implementing effective policy instruments and policy measures.
Since this study takes the Italian footwear sector as its focus of analysis, it may be of interest to entrepreneurs, managers, and employees active in the Italian footwear sector as well. Given the specific characteristics of this sector, present study may give insight into particularities of the footwear sector and can support persons involved in this sector in their strategic decision making.

Distinctive features of Italian industrial districts

Among the ten specific features that characterize Italian industrial districts presented in Becattini (1990), different features of IIDs are related to IIDs' company performance. A selection of these features is elaborated in more detail by this research:

1. *Population of companies*: companies inside districts belong mainly to the same industrial branch and are usually specialized in just one or few phases of the production chain. This enables specialization, which is assumed to enhance performance. Another characteristic of companies located in industrial districts relates to its products: technically suitable products for a district are fairly differentiated products whose market demand is inconstant over time. Finally, the presence of pronounced and strong inter-firm relationships – mainly via kinship and friendship between actors in the district – is a remarkable feature, unique to the nature of IIDs.
2. *Human resources:* this feature relates to a pool of specialized labor present inside the district. The tendency of the district to optimally reallocate its human resources forms one of the conditions for the districts' competiveness (Alberti, 2003). Specialized companies in the district attract and retain the most skilled workers. If workers change employer, but remain active within the district, the worker's specialized knowledge and accumulated experience still remains part of the district and is not lost. Therefore, specialized knowledge is considered a public (that is, non-rival and non-excludable) good inside the IID, freely available to all its members.
3. *Competition and cooperation*: the balance between competition and cooperation among companies operating inside the district is another distinctive feature of IIDs. This balance translates itself into a high degree of vertical cooperation, in which companies seek economies of scale in complementary activities and a high degree of horizontal competition between companies performing similar activities (substitutes).
4. *Local credit system*: inside IIDs the disadvantage of the traditional limited access of small companies to credit is resolved to some extent by the presence of 'local banks'.
   Local banks emerged and established within the local community and are closely linked to local entrepreneurs.

Methodology

Applying geographical and sector filters, the data for the quantitative part of this research are obtained from the Amadeus database. This online database contains both financial information and business intelligence about 13 million European companies.
The dependent variable of the analysis is company performance and is assessed using three different performance indicators. A dichotomous dummy variable is created, indicating if a company is located inside or outside an IID. An appropriate data selection results in a final dataset comprising 1'165 companies, of which 538 (46%) represent IDCs and 627 (54%) non-IDCs.
For showing potential differences of means between IDCs and non-IDCs independent samples t-test are applied. For causal relationships between dependent and independent variables linear regression (ordinary least squares estimation) is used.

The qualitative data are collected through semi-structured interviews conducted with entrepreneurs, senior managers, and experts both from the so called *Fermano-Maceratese* footwear district, as well as from other provinces throughout June 2008. The recorded interviews are translated and typed out, codified, and finally analyzed for events.

Results

The combined use of qualitative and quantitative data supplements and enables providing a deeper understanding of the performance increasing features of IIDs. The difficulties related to finding suitable data for various, partially intangible, features make the use of multiple data sources even more relevant in answering the research question.

The results of the quantitative analysis (see table) reveal that IDCs outperform their non-district counterparts This supports the conjecture of the existence of a district effect. Secondly, *labor costs* and *specialization* demonstrate a positive relationship with company performance.

Notwithstanding the positive effect of labor costs and specialization on company performance, it does not differ significantly between IDCs and non-IDCs. Microeconomic theory predicts a positive relationship between labor costs, labor productivity, and, finally, profitability. Nevertheless, the empirical analysis does not find direct supporting evidence of higher wages for IDCs. IDCs provide employees additional secondary benefits, which could explain higher labor productivity, though.

The industrial organization of IIDs is characterized by a relatively high degree of phase specialization. IDCs are more specialized than non-IDCs, resulting in more efficient forms of vertical inter-firm cooperation, which is company performance enhancing.

The information obtained in the corporate interviews provides an equivocal image on horizontal inter-firm competition. The degree of competition is perceived to be similar, especially since new technologies and means of communication have brought competition to the global playing field. However, whereas IDCs experience competition as beneficial and stimulating, non-IDCs do not regard competition as advantageous but rather as a threat. There are no perceived differences in the efforts of institutions, which therefore does not offer an explanation for higher IDC performance. There is no difference observed with respect to the role of financial intermediaries. This does not form an explanation for IDCs performance either.

Feature	*Statement*	*Result*
Labor market		
Proposition (1)	*IDCs obtain faster suitable employees than non-IDCs*	X
Hypothesis (1a)	*Labor costs are higher for IDCs compared to non-IDCs*	X
Hypothesis (1b	*Labor costs are positively related to IDC performance*	√
Specialization		
Hypothesis (2a)	*IDCs are more specialized compared to non-IDCs*	√
Hypothesis (2b)	*Specialization is positively related to IDC performance*	√
Industrial organization		
Proposition (2a)	*IDCs exhibit a higher degree of vertical inter-firm cooperation than non-IDCs*	X
Proposition (2b)	*IDCs exhibit more intense horizontal inter-firm competition than non-IDCs*	X
Institutions		
Proposition (3a)	*Institutions' services are specifically targeted towards IDCs*	X
Proposition (3b)	*IDCs are more often associated to institutions compared to non-IDCs*	X
Proposition (3c)	*IDCs make more use of services provided by institutions*	X
Proposition (3d)	*IDCs are more satisfied by the services provided by institutions*	X
Financial intermediaries		
Hypothesis (3a)	*IDCs have higher leverage ratios compared to non-IDCs*	X
Hypothesis (3b)	*Leverage ratio is positively related to IDC performance*	X
Proposition (4)	*IDCs make more often use of local banks compared to non-IDCs*	X

Table: Results overview *('propositions' are evaluated qualitatively; 'hypotheses' are tested empirically)*

Conclusion

The contribution of this research is unique as it takes a combined quantitative and qualitative approach when studying company performance of industrial districts. After having thoroughly investigated the Italian footwear industry and the Fermano-Maceratese footwear district in particular as an example of industrial districts, it is worthwhile taking a final moment to zoom out and review this research and its implications again from a macro view posing the question: '*What do we know now and why is that relevant?*'

Concluding, this research has provided indications that the concept of IIDs is still not completely understood, despite the substantial existing body of predominantly descriptive (that is, not empirical) literature. The research provides evidence that location matters and being located in IIDs is beneficial for company performance. However, not all mechanisms active in IIDs have been identified or incorporated in present study. Future research can address additional mechanisms in order to enhance IID understanding. Moreover, this research has taken a transaction costs economics perspective (considering performance from a governance approach modeling inter-firm relationships specific to IIDs) rather than a microeconomic approach (considering performance from a market power and competition approach).

As a final note: understanding IIDs better is of interest to all stakeholders involved -ranging from policy makers and academic researchers, to employees and decision making mangers- and relevant both from a scientific and from a societal viewpoint.
We are convinced to have contributed to this understanding by pursuing this research.

Jeroen van 't Hooft & Floor van der Wind

Acknowledgement

The authors wish to sincerely thank *Prof. Marco Cucculelli* from *Università Politecnica delle Marche* for his valuable inputs for this summary.

References

Alberti, F., 2003. Re-writing industrial districts. *A challenge to the taken for granted grammar*. The 17th Nordic conference on Business Studies, Scandinavian Academy of Management, Reykjavik, Iceland.

Becattini, G., 1990. The Marshallian industrial district as a socio-economic notion, in Pyke, F., Becattini, G. & Sengenberger, W., (eds.) 1990. *Industrial districts and inter-firm co-operation in Italy* p. 10-19.

Paniccia, I., 1999. The Performance of IDs. Some insights from the Italian case. *Human systems management,*18 p. 141-159.

Sforzi, F., 1990. *The quantitative importance of Marshallian industrial districts in the Italian economy in Industrial districts and inter-firm co-operation in Italy*, International Institute for Labour Studies, Geneva.