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Research Policy

journal homepage: www.elsevier.com/locate/respol



Migrant entrepreneurs and local networks in industrial districts

Jacopo Canello¹

Department of Geography and Earth Sciences, University of North Carolina at Charlotte, United States

ARTICLE INFO

Article history:

Received 21 January 2015
Received in revised form 12 May 2016
Accepted 15 May 2016
Available online xxx

JEL classification:

A13
R12
R23

Keywords:

Migrant entrepreneurship
Network
Industrial districts
Resilience
Clusters
Social capital

ABSTRACT

Migrant firms are increasing in local manufacturing systems. Their presence is expected to generate beneficial effects in host regions by stimulating trade flows and knowledge diffusion. However, the opportunity for migrant entrepreneurs to prosper depends on their ability to establish linkages with the local firm networks. Using an innovative database on Italian micro and small businesses, this paper investigates the performance of a sample of migrant and indigenous firms, providing evidence of a significant gap. The results suggest that manufacturing systems that exclude migrant firms are missing a key opportunity to integrate a valuable source of diversity.

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1. Introduction

Economic regions are far from being the quiet and static environments originally described by classical models. The globalization of markets and production activities is rapidly reshaping the economic landscape, breaking the existing local equilibria and leading an increasing number of regions towards new irreversible scenarios. In this evolving context, the survival chances tend to be higher for those local systems showing higher adaptive behaviour, as the recent literature on regional resilience has clearly stated (Martin, 2011; Simmie and Martin, 2010). The challenge raised by this phenomenon is particularly steep for Marshallian industrial districts (IDs), where the simultaneous action of inward and outward forces associated with globalization and the reactions of local business populations have triggered a reshaping process of these formerly closed networks: the main determinants of this evolutionary process are the increasing presence of migrant businesses and the

implementation of offshoring and offshore outsourcing strategies by district firms (Rabellotti et al., 2009). Most empirical works (e.g. De Propris et al., 2005; Cusmano et al., 2010) have focused on the latter aspect, while the former has been overlooked due to the lack of suitable microdata.

The aim of this paper is to interpret the evolutionary dynamics of Italian industrial districts by focusing on an inward force that is gradually redesigning the internal structure of local networks: the rapid diffusion of migrant entrepreneurship. This phenomenon is evident in several sectors of the Italian economy: interestingly, in manufacturing activities this presence often tends to cluster inside industrial districts (Barberis, 2008, 2011; Lombardi and Sforzi, 2016). In these specific contexts, the benefits associated with labour pooling, input–output linkages and knowledge spillovers can potentially improve the performance of those entrants who succeed in interacting effectively with the local network. The successful integration of the newcomers is expected to generate positive externalities in the host economic network, as local firms can exploit the advantages arising from accumulation of diverse know-how and from the connections built by foreign entrepreneurs in their home countries.

The empirical investigation implemented in this work provides evidence of the survival and performance trends of indigenous and migrant firms in different types of local systems, in an attempt to find a systematic relationship between the survival chances and the

E-mail address: jcanello@uncc.edu

¹ I thank Fabiano Schivardi, Andrea Pozzi, Paolo Pavone, Jason Potts, John Foster, Prasada Rao, Peter Earl, participants at presentations at the Annual European Conference (2013) and Global Conference (2014) of the Regional Studies Association and two anonymous referees for helpful comments and discussions. I am thankful to the Italian Revenue Agency and SOSE - Soluzioni per il Sistema Economico S.p.A. for providing support for this research.

performance of a migrant entrepreneur and the decision to set up a business inside an industrial district. The aim of this empirical exercise is to identify the conditions under which the 'district effect' is exploitable by migrant firms and whether this benefit is compatible with the stability of the local firm population: it is believed that the findings will shed new light as to what extent the local knowledge embedded in industrial districts is appropriable by migrants and whether migrant firms are enabled to feed the district with their skills and abilities, providing benefits for the future stability of these local systems. The analysis is implemented on a large sample of micro and small firms extracted from the Italian Ministry of Economy and Finance Annual Survey, focusing on manufacturing industries where the presence of both migrant firms and industrial districts is particularly relevant. A major benefit from using this data source arises from the possibility to identify a significant number of businesses excluded from the most commonly used firm-level databases, thus unveiling a relevant grey area where immigrant entrepreneurship has mushroomed in the recent past. The present paper represents a step forward with respect to previous research on migrant entrepreneurship in industrial districts, which is essentially limited to case studies given the lack of suitable microdata.

The paper is organized as follows. The second section presents a concise review of the relevant ethnic minority literature, discussing the role of the host environment in explaining the performance of migrant firms. In the third section, an overview of the main expected benefits associated with the successful inclusion of migrant entrepreneurs in industrial districts is presented and discussed in the context of the most recent literature. The fourth section presents the main features of migrant entrepreneurship in Italy, focusing on the key role played by industrial districts, where most manufacturing migrant firms tend to locate their businesses. This analysis is complemented with a brief presentation of the Prato case study: in this context, the presence of migrant entrepreneurs has had a major impact on the recent evolution of the district. In the fifth section, the approach used in the empirical analysis is introduced and the results of the investigation are presented and discussed, focusing on the role of industrial districts in influencing the survival trends and performance of migrant entrepreneurs. Finally, the concluding remarks and some potential policy implications are drawn.

2. Motivations and strategies of migrant entrepreneurs: from the structuralist–culturalist dichotomy to a place-based approach

The literature on migrant entrepreneurship has identified a number of motivations driving the choice of an immigrant to become an entrepreneur. These reasons traditionally appear to differ from the classic view of entrepreneurship provided by the economic literature. In the early studies, the most influential positions in explaining the immigrant entrepreneurship phenomenon were gravitating around the *cultural* and the *structuralist approach* (Mavratsas, 1997). According to the former theorists, the wide variations in entrepreneurial rates across migrant groups were explained by cultural and religious factors, such as propensity towards hard work, low risk aversion, strong links with the existing ethnic community and in general a greater orientation towards self-employment. The structuralist approach takes an entirely different perspective, arguing that environmental factors of the host locality play a key role in determining the chances of a successful migrant venture. According to this view, migrants' decisions in the labour market are heavily influenced by the limited occupational mobility available in most host countries, where cultural barriers and discrimination often generate wide salary gaps and limited possibilities to improve the original economic status. Both

views share a number of relevant limitations: according to Chan and Cheung (1985), positions based purely on cultural factors join the risk of being dangerous in that they enhance a categorizing process towards certain migrant groups. Moreover, recent empirical works have reported that the same ethnic groups show different entrepreneurial attitudes in different countries (Oliveira, 2007). The structuralist approach has been questioned by the literature as it does not explain why ethnic minorities with higher degree of discrimination show lower entrepreneurial rates (Zhou, 2004) and why the same differences exist between ethnic groups that are subject to similar barriers in the local labour market.

The limits identified by the literature for the two methodologies have fostered the implementation of hybrid approaches to account for both the structural and the cultural aspect: in this context, the *interactive model* (Waldinger et al., 1990) and the *mixed-embeddedness model* (Kloosterman et al., 1999) are the two theories which have proved to be more effective in incorporating most of these elements into an organic theoretical framework. The approach proposed by Waldinger et al. (1990) is the first attempt in this field of research to incorporate the role of external opportunities offered by the host environment, such as market structure, access to ownership and job market conditions, into the decision of a migrant to start a new business. These elements are seen to be constantly interacting with other determinants, such as the amount of resources shared by the immigrant enclave, especially the ethnic community in which the potential entrepreneur is embedded. The mixed-embeddedness model stresses the importance of institutional and legal factors in determining the strategies and the success of immigrant entrepreneurs: the claim is that the analysis of demand and supply mechanisms is not sufficient to explain the opportunities provided by the host environment, and that more attention should be drawn on elements such as labour market policies, migration laws, social benefits rights and the banking system.

All the main approaches identified by the existing literature on migrant entrepreneurship ignore the fact that the economic environment varies widely on a national and regional scale, offering completely different opportunities from one place to another (Volery, 2007). Therefore, such frameworks provide no theoretical explanation of why immigrant economic activities tend to cluster strongly within the same country, especially when manufacturing activities are concerned. Regardless of the interpretation used to explain this trend, it is evident that the opportunity structure should be inspected at a national, but also at a regional and local level: such an approach appears to be in line with that used by policy makers in most advanced countries, where the majority of public support programmes to migrant entrepreneurship are implemented at the local level (Desiderio and Mestres-Domenech, 2011, p. 161). This attitude stems from the recent trend within political economy to develop place-based strategies that go beyond the traditional 'one-size-fits-all' development approaches, exploiting the potential of both the territories and the individuals that live and interact in them (Barca, 2009; Barca et al., 2012; OECD, 2009). In this respect, place-based policies are a particularly effective tool to tackle the *persistent underutilization of potential and reducing persistent social exclusion* (Barca, 2009, p. VII).

Against the above background, this paper aims to integrate an economic geography and economic sociology perspective to the migrant entrepreneurship literature, proposing a social-spatial framework to study the evolutionary patterns of these firms in industrial districts: such a view has been identified as the most promising approach for empirical inquiries on this topic (Wang, 2013). In this respect, adopting a relational perspective towards migrant entrepreneurship appears to be particularly appropriate. One the one hand, the main benefit of using such an approach is that it takes emphasis off the entrepreneur, overcoming the limits of an atomistic view and focusing on the importance of relations

and contextuality in explaining the successful performance of a firm (Bathelt and Gluckler, 2003; Bathelt, 2006). On the other hand, the relational perspective maintains an agent-based focus, limiting the tendency of the mixed-embeddedness approach to overemphasize the role of the local opportunity structure, leading to a structural deterministic view of migrant entrepreneurship. In general, the relational approach maintains that agents are embedded in structures of socio-institutional relations and networks which influence their decisions and actions (Yeung, 2005). Such view seems to be particularly convenient to explain the benefits associated with the interaction between migrant and indigenous firms in industrial districts, where the dynamics of migrant firms' activity cannot be explained by the same spatial laws used in other contexts. In most cases, these systems are not the real actors, but rather represent socially constructed entities characterized by constant interaction of people operating in firms and other organizations. As the following section will show, inside these spaces the presence of migrant firms can foster a place-based process of learning that generates a number of social and economic benefits. However, for these benefits to be realized, migrants must be capable to effectively embed themselves into the ID local networks: in other words, when the positive ID effect is transferred to migrant entrepreneurs, the host locality can exploit the advantages associated with their successful presence. In this respect, evaluating the survival and the performance of migrant and indigenous firms inside and outside industrial districts can provide valuable hints to evaluate whether this assimilation process is occurring, generating the positive externalities that will be discussed in more detail in the following section.

3. The potential benefits associated with the successful integration of migrant firms into industrial districts

Industrial districts are a distinguishing feature of the Italian manufacturing system: this organizational model has driven the economic growth of Italy in the last decades of the 20th century. The high degree of specialization of most districts, together with the presence of strongly embedded economic and social networks, has traditionally been seen as the main source of their competitive advantage, providing benefits in terms of input–output linkages, labour pooling and knowledge spillovers (Becattini, 1990). However, in the recent past IDs have experienced a period of severe decline caused by a persistent lack of competitiveness: the increasing pressure from Emerging Countries is one of the factors threatening the future of these socio-economic entities. In this context, the lack of diversity existing inside most ID firm populations is increasingly seen as one of the possible factors explaining their low resilience, intended as the ability to withstand, absorb and overcome an external economic shock (Martin, 2011). This explanation is based on the *diversity–stability hypothesis*, borrowed from ecological studies (MacArthur, 1955), which maintains that the structure of a diverse environment is better suited to face radical and unexpected changes.

The challenges posed by the globalization of production activities generate a number of threats but also opportunities for the indigenous firms populating industrial districts. Indeed, the presence of outward but also inward forces, such as migrant entrepreneurship, represents a potential source to reshape the internal structure of local economic networks, increasing the degree of diversity in these systems and avoiding lock-in dynamics associated with over-embeddedness. In this respect, the main potential economic benefits associated with the diffusion of migrant entrepreneurship inside industrial districts can be summarized as follows:

1. *Increase of trade flows with migrants' home countries*: migrants have better knowledge of their home countries, markets,

business practices and laws. Therefore, the interaction between migrant and indigenous firms is expected to reduce the trade transaction costs generally associated with the establishment of commercial links with a foreign country, as the host locality can benefit from migrants' knowledge and from the existing connections between these entrepreneurs and their home countries (Portes, 1995; Hatzigeorgiou, 2010). Specifically, the presence of transnational entrepreneurs, identified by Portes et al. (2002) as immigrant business owners engaging in at least two work travels every year, is particularly important for the creation and development of global networks. In this respect, the importance of migrant firms is also associated with their ability to bridge the “structural holes” of the host economic system: indeed, according to Burt (1992), the effectiveness of a network increases with the presence of newcomers having ties into multiple networks that are largely separated from one another.

2. *Diverse knowledge diffusion*: a potential gain associated with the presence of migrant entrepreneurship is the introduction of tacit and codified knowledge that is not contained in the host locality. This process is likely to enrich local production and stimulate the innovation potential of the local network (Parrilli, 2012). According to the OECD (2014), highly skilled migrants are potentially capable to feed domestic firms and workers with new ideas, fostering the development of new goods, processes and services. In this respect, interaction between migrant and indigenous firms can generate a process of knowledge dissemination that increases local know-how, providing new tools to face global competition.
3. *Alternative to offshore outsourcing activities*: the presence of migrant firms provides an opportunity to subcontract production activities without investing resources to establish new links in foreign countries (Mingione, 2009). In this respect, interaction between migrant suppliers and the domestic network can provide the advantages associated with *in situ offshoring* (Ceccagno, 2015), representing a cheap alternative to offshore outsourcing activities. This aspect is particularly relevant in light of the backshoring process that has involved several ID firms after the economic downturn following the 2008 financial crisis (Fratocchi et al., 2014): in most cases, the benefits from outsourcing production activities in foreign countries have been outweighed by the drawbacks associated with this strategy.

It is crucial to stress that the potential benefits associated with migrant entrepreneurship do not arise spontaneously as the result of the mere presence of these firms in a locality: rather, their materialization critically depends on the approach used by the local community to manage this resource. Domestic firms can integrate foreign suppliers into the social network (*high road*) or rather replace indigenous with migrant firms in an opportunistic way to reduce costs, without integrating the outsiders into the social network (*low road*). Pursuing the low road towards internal outsourcing may be attractive in the short run, curbing production costs and acting as a cushion during economic crises. However, the choice of exploiting cheap migrant subcontractors undermines the competitive advantage of IDs, enhancing a self-reinforcing process that can easily deplete the social capital of the locality, generating conflicts and gradually disintegrating the local system.

4. Migrant entrepreneurship in Italian IDs and the peculiar case of Prato

Migrant entrepreneurship is a relatively new phenomenon in Italy, whose diffusion has been traditionally limited by several factors, such as the unfavourable legislative framework and the lack of established ethnic communities to support migrant businesses (Magatti and Quassoli, 2003). However, recent evidence

shows that this trend has reversed dramatically in the recent past: in this respect, a key role has been played by Law 40/1998, which significantly expanded access to entrepreneurship among migrants (Magatti and Quassoli, 2002; Barberis, 2008). The number of businesses run by foreign entrepreneurs in Italy has tripled from 2003 to 2012, reaching an estimated number of 477,519, with 7.8% registered and active companies in Italy foreign-owned (Unioncamere, 2014).

Although construction and services are the main economic activities in which migrants engage, a significant share of these entrepreneurs operate in the manufacturing sector (Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa, 2011). In Italy, migrant manufacturing firms tend to concentrate their activities in specific regions: according to the recent work of Barberis (2011), focused on the Chinese ethnicity, migrant entrepreneurial rates are significantly higher in industrial districts, with a diffused presence inside the territories specialized in textile and clothing, footwear and furniture production. The propensity of migrants to locate within IDs is not an element of novelty itself, considering the massive use of migrant labour force implemented by most ID firms since the late 1990s (Andall, 2007).² However, the proliferation of migrant entrepreneurship in IDs is a recent phenomenon with a more direct impact on the structure of local economic networks.

Despite the increasing relevance of this phenomenon, we still lack a clear understanding of whether or not migrant firms are integrating into host networks, generating the benefits discussed in the previous section. In fact, the core of the sparse literature on migrant entrepreneurship in industrial districts is focused on the only case where the entrance of most migrant entrepreneurs traces its roots back to the end of the 1990s, i.e. the textile-clothing ID of Prato (Dei Ottati, 2009a; Santini et al., 2011; Johanson et al., 2009): in this area, the presence of Chinese firms is still a relevant feature of the economic landscape. The emergence of a Chinese enclave in Prato is the result of the progressive increase of migrant flows following the alleviation of the institutional barriers to migration by the Chinese government: this process has led many Chinese to move to Europe to find economic and social opportunities not available in their home country (Denison et al., 2009). In Prato, this phenomenon started at the beginning of 1990s (Becattini, 2001, pp. 161–162).

Originally, most of the new migrant firms were suppliers operating for Italian final goods producers and specialized in one or more production activities characterized by high levels of standardization (Ceccagno, 2009). At this stage, the interaction between the local subcontracting network and Chinese suppliers was driven by mere opportunistic considerations: the newcomers were able to provide a component or finished good at lower prices, with sufficient quality which was determined by the skills of the new entrepreneurs, acquired during their former experience in their home country. However, this collaboration was not coupled with a parallel process of integration into the social and economic community. The reasons of this pattern are imputable both to the host community and to migrants' behaviour. On the one hand, Chinese entrepreneurs continued to work according to their social and economic rules, without adopting the code of conduct chosen by the indigenous community. On the other hand, indigenous entrepreneurs prevented any possibility to integrate the newcomers into the local network, focusing uniquely on the benefits associated with the lower costs of subcontracting production.

The negative effects of this missed integration became visible when an increasing number of Chinese firms started diversifying

their businesses and upgrading along the value chain, transforming into final goods producers or converters operating on an international scale (Ceccagno, 2009). Indeed, these new local actors could immediately count on a large pool of ethnic suppliers ready to break the links with indigenous firms to work for the newly established contractors: according to interviews conducted among Chinese suppliers, this attitude was essentially motivated by the diffused tendency among indigenous firms to repeatedly and deliberately delay payments or even not paying in several circumstances (Ceccagno, 2009). This process gradually led to the emergence of an ethnic sub-district with its own rules and division of labour, further increasing the social and economic distance from the indigenous local network (Marsden, 2004; Ceccagno, 2015). The missed assimilation of the Chinese firms into the local network has led to a lose-lose scenario: on the one hand, the indigenous community has missed the chance to benefit from the trans-national links established by migrant firms and from the diverse source of knowledge associated with a different cultural and economic background. On the other hand, the 'ethnic district' of Prato appears not to be sustainable in the long run. If the emergence of a competing district is perceived by the local network as a threat, the migrant enclave is likely to be isolated by the host locality, fostering the creation of a risky environment where the presence of social conflicts endangers the economic stability in the long run (Dei Ottati, 2009b).

The case study of Prato is certainly not generalizable to all industrial districts, given its unique features make it unlike any other local system in Italy but also in Europe (Latham and Wu, 2013; Dei Ottati and Cologna, 2015): indeed, the relative size of the ethnic network and the timing and speed by which it has developed has led this district to experience a substantial transformation that is different from the other IDs, where the emergence of migrant entrepreneurship occurred at a later stage. Nonetheless, it is believed that the evolutionary path of this local system could serve as a warning sign as to what may happen if the process of assimilation of migrant entrepreneurship does not occur effectively in an industrial district: other than not bringing the benefits to the host locality and to the migrant firms, the choice of a "low road" can lead to negative externalities in the long term that could be detrimental not only in terms of resilience, but also for the survival of the district. As it will become clear later in this paper, the empirical investigation aims to account for the peculiar features of this ID, in an attempt to provide a consistent interpretation of the observed trends.

5. The performance of migrant firms in IDs: an empirical approach

The previous sections have highlighted that migrant entrepreneurship has become a distinguishing feature of several industrial districts: the presence of these firms is likely to provide a number of sustained benefits to the local networks, mainly associated with the increase of trade flows and diverse knowledge diffusion, but also with the provision of a domestic alternative to offshore outsourcing. However, the present scenario lacks an extensive evaluation of whether these firms are capable to benefit from the ID effect, generating positive externalities in the host regions. In an attempt to fill the existing gap, the empirical investigation implemented in this section aims to evaluate and compare the survival trends and performance of migrant and indigenous firms inside and outside industrial districts, in an attempt to identify whether:

1. The performance of migrant firms is significantly different inside and outside industrial districts;
2. Migrant firms located inside industrial districts benefit from a positive ID effect that translates into better performances.

² According to Barberis (2011), in 2005 the share of migrants living inside these areas was already 32% of the total migrant population in Italy.

Table 1
Structural characteristics of indigenous firms established between 2003 and 2011 outside and inside Italian IDs.

	Firms located outside industrial districts		Firms located inside industrial districts	
	Mean	Std. dev.	Mean	Std. dev.
Firm life (years)	4.38	2.68	4.43	2.66
Gender (1 if male)	0.72	0.45	0.66	0.47
Financial constraints (1 if not constrained)	0.40	0.49	0.54	0.50
Entrepreneur age	44.33	11.80	46.19	11.74
Incidence of cash holdings over physical asset value	0.73	4.13	1.16	6.53
Number of employees	1.69	2.09	2.25	2.64
Number of production phases (distance from industry median)	0.41	3.59	−0.29	3.03
Firm typology (1 if supplier)	0.44	0.50	0.70	0.46
Dependency from main subcontractor (% of total revenues)	25.29	32.79	40.59	33.81
Physical asset value (euro)	31,423	62,219	39,759	66,088
Market area served (1 = municipality; 2 = province; 3 = region; 4 = country)	2.29	0.89	2.61	0.85
Productive area (sqm)	139.58	192.36	213.51	297.24

Source: Author's elaborations on Italian Ministry of Economy and Finance Annual Survey data.

The empirical analysis is focused on three manufacturing sectors (clothing, footwear and furniture production) where the presence of both migrant entrepreneurs and industrial districts is particularly relevant: in fact, most of the case studies described by Barberis (2011) are focused on IDs specialized in these three sectors. The database used for the empirical investigation includes sole proprietorships established in Italy between 2003 and 2011 and is extracted from the Italian Ministry of Economy and Finance Annual Survey, which includes all the firms with turnover lower than 7.5 million euro.³ The sample used for the analysis is represented by those firms operating in one of the economic activities included in the following sector studies: *D07B – Manufacture of Wearing Apparel and Accessories*, *D08U – Manufacture of Shoes and Shoe Components and Parts* and *D09A – Manufacture of Wood Furniture, Chairs, Sofas, Doors and Windows*.⁴ This sample can reasonably be assumed to include the great majority of sole proprietorships operating in the three manufacturing sectors considered, as this legal form tends to be chosen by micro and small firms whose revenues are considerably below the imposed boundary. The use of this database is particularly convenient to study migrant entrepreneurship, considering that 80% of migrants choose this slim legal form to start their ventures (Unioncamere, 2014). Moreover, the wide variety of both structural and economic variables included in this data source allows to control for a number of individual, firm-level and environmental factors that are likely to impact on firm survival and performance. Finally, the survey does not impose a minimum threshold for firm size: this feature allows to overcome an important drawback associated with most firm-level databases, which tend to exclude businesses failed before reaching the minimum size to be included in the survey (e.g. 10 employees). This element introduces a substantial amount of bias in empirical analyses, as factors influencing failure chances during the start-up period of a firm, when its size is very small, cannot be evaluated by the model (Audretsch et al., 2000).

The analysis is divided into two main sections. In the first part, a semi-parametric Cox Proportional Hazards model and a parametric Accelerated Failure Time model are implemented to study and evaluate the survival trends of migrant and indigenous firms inside and outside industrial districts. In the second part, the sub-sample of firms survived after their start-up period is selected and the effect of a set of explanatory variables on economic performance is

evaluated through an OLS regression. Both in the first and in the second part of the empirical analysis, the set of explanatory variables considered for the investigation includes individual, firm-level and environmental characteristics that are believed to influence the survival chances and the performance of the firms operating in the sectors considered. The ID dummy variable, i.e. one of the key covariates of the model, is identified through the methodology proposed by Canello and Pavone (2016). One of the main benefits of this approach is that it allows to discriminate between the different ID typologies according to their structural characteristics: for the purpose of this study, an industrial district is defined as *advanced* if the procedure classifies it as *service-intensive* and *multidimensional*, while it is identified as *traditional* in the other cases.

5.1. Descriptive analysis

The descriptive analysis presented in Table 1 shows that the profile of indigenous firms inside IDs tends to differ from those located in other regional contexts: the former are generally more structured, with higher employment levels and capital intensity and larger production areas. A number of features emerging from this analysis appear to be consistent with the key theoretical findings of the economic literature on industrial districts. The micro/small indigenous firm located in these areas typically operates as a supplier (70% of total), with a relevant dependency upon its main contractor (40% of the total revenues), and tends to be specialized in a limited number of production phases of the local labour division process: indeed, the average number of phases is significantly lower than the median value of the other firms operating in the same industry. The data also reveal some aspects generally associated with the social structure of industrial districts: for example, the presence of female entrepreneurs is more diffused inside IDs (34% of total), confirming the presence of higher social mobility with lower gender disparities.

The average age of indigenous entrepreneurs is generally older, suggesting the presence of a potential problem of intergenerational transfer. Finally, the results show that the probability to face credit constraints is lower for ID firms, considering the lower percentage of credit rationed firms: this difference is possibly motivated by the capillary presence of local banks that are embedded within the local economic network and benefit from the shared system of values and the diffused levels of trust.

The patterns emerging from the analysis of migrant firms' structure (Table 2) are significantly different from those presented for the indigenous counterparts. These businesses are generally micro-scale enterprises with an extremely limited amount of capital assets. Another important feature emerging from the descriptive

³ A preliminary data cleaning process has been implemented on the database to handle the specific peculiarities of this data source: the detailed explanation of this work can be found in Appendix (Section S.1).

⁴ The detailed list of the ATECO codes associated with each Sector Study used for the analysis can be found in Appendix (Table S.1).

Table 2
Structural characteristics of migrant firms established between 2003 and 2011 outside and inside Italian IDs.

	Firms located outside industrial districts		Firms located inside industrial districts	
	Mean	Std. dev.	Mean	Std. dev.
Firm life (years)	3.00	1.84	2.92	1.80
Gender (1 if male)	0.58	0.49	0.58	0.49
Financial constraints (1 if not constrained)	0.20	0.40	0.21	0.41
Entrepreneur age	39.39	9.35	39.09	9.19
Incidence of cash holdings over physical asset value	1.64	11.12	2.05	9.09
Number of employees	1.87	1.61	1.99	1.80
Number of production phases (distance from industry median)	-0.22	1.58	-0.44	1.31
Firm typology (1 if supplier)	0.83	0.38	0.90	0.31
Dependency from main contracting firm (% of revenues)	50.69	31.91	53.57	28.22
Physical asset value (euro)	13,204	22,584	14,817	22,744
Market area served (1 = municipality; 2 = province; 3 = region; 4 = country)	2.36	0.72	2.51	0.63
Productive area (sqm)	145.02	206.14	119.66	142.68

Source: Author's elaborations on Italian Ministry of Economy and Finance Annual Survey data.

analysis is the limited access to credit reported by these firms: indeed, 80% of migrant entrepreneurs do not appear to receive financial support from local banks. Contrary to indigenous firms, the migrant firms' profile does not change significantly inside industrial districts, both in terms of individual and firm-level characteristics: most firms tend to remain scarcely structured, with limited use of labour force and of capital, and are generally owned by younger and gender-balanced entrepreneurs. The organizational structure is heavily oriented towards subcontracting activities, with a relevant dependency upon the main contractor (54% of total turnover) and a strong specialization on a limited number of production phases. Moreover, migrant firms appear to be equally rationed in the credit market inside IDs, as only 21% of them receive financial resources from the local financial institutions.

The descriptive data provide some interesting preliminary indications on the survival trends of the two groups. First, there appears to be a wide gap in life expectancy between migrant and indigenous firms, with higher gains for the latter group. Inside industrial districts, this gap tends to widen: indeed, the average life expectancy of ID firms run by Italian entrepreneurs is 4.38 years, whereas migrant firms stay in the market for less than three years in the same contexts. This trend is confirmed by the analysis of the survival curves presented in Fig. 1. First, it is worth noting that the trend of both migrant and indigenous hazard curves is consistent with previous findings in the literature: the conditional hazard functions show for all strata an inverted-U shape, increasing during the start-up period of these firms and decreasing thereafter. This result is consistent with the empirical analysis of Audretsch et al. (1999) for Italy, but also with similar studies implemented in other countries

(Bartelsman et al., 2005), and supports the *liability of adolescence hypothesis* (Fichman and Levinthal, 1991).

Hazard curves for indigenous firms inside and outside industrial districts show similar patterns, although the risk of failure is higher inside IDs during the first few years and lower after the start-up period. This trend can be explained by the necessity to accumulate social capital and gain reputation in the local network during the adolescence period: the initial investment is subsequently rewarded by the benefits from the industrial atmosphere once the firm is embedded into the local network. The same pattern is not detected among migrant firms: for these businesses, the chances of failure are significantly higher than their indigenous counterparts and the gap tends to widen inside industrial districts.

5.2. The survival chances of migrant firms in industrial districts: evidence from a duration approach

5.2.1. Presentation of the model

The preliminary indications emerged from the descriptive analysis have been formally tested using a duration approach, in an attempt to find a systematic relationship between migrant firms' survival chances and location within an industrial district. Despite no consensus on a single indicator for migrant entrepreneurs' success has been achieved, economic survival is generally considered as the primary criterion to assess the performance of this particular type of firms (Basu, 2008).

The main econometric specification used to study survival determinants is the proportional hazard model popularized by Cox (1972). The semiparametric nature of this approach is the

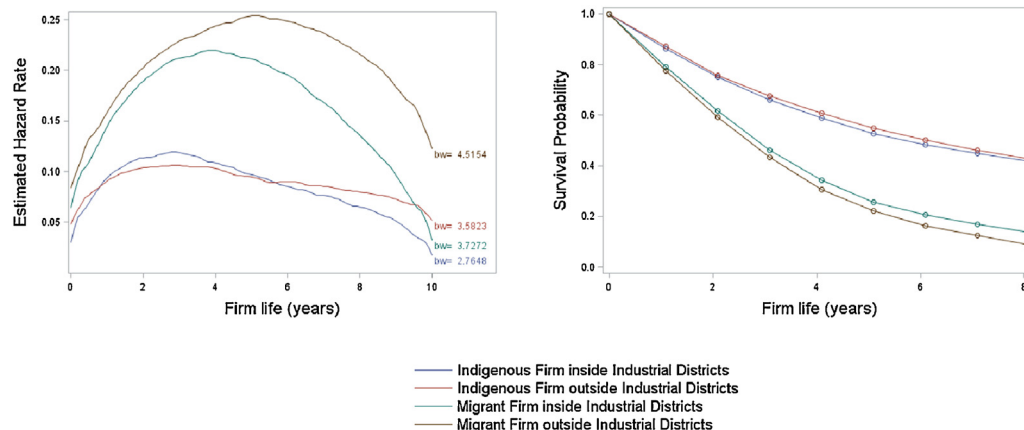


Fig. 1. Survival curves, indigenous and migrant firms outside and inside IDs.

main factor explaining its popularity, as no assumptions on the probability distribution is required to represent the survival times. The model is usually specified as follows:

$$h(t_i) = \exp(\beta_0 + \beta' x_i) h_0(t_i) \quad i = 1, \dots, n.$$

where hazard $h(t_i)$ for individual i at time t is the product of the baseline hazard rate, which is left unspecified, and a linear function of a set of covariates that are expected to influence the probability of survival. The baseline hazard rate is the hazard function for an individual whose covariates take all 0 values. This specification is called proportional hazards model as it requires the assumption that hazard for each firm is a fixed proportion of the hazard of any other firm in the sample. The estimation process is implemented through partial likelihood, and it requires the preliminary elimination of the intercept and the application of the maximum likelihood methodology to the residual portion of the function. The robustness of the findings of the main specification are tested by implementing the parametric alternative to the PH model, i.e. the Accelerated Failure Time model. In this case, the hazard function is explicitly defined through a specific form. The model is estimated through maximum likelihood approach.

In both specifications, the set of explanatory variables chosen includes individual, firm-level and environmental factors. A description of the variables included in the model and their expected effect on the survival chances is presented below, using theoretical considerations and previous empirical findings of the relevant literature.

Individual factors

- *Migrant*: a dummy equal to one when the entrepreneur is migrant. In the main specification with interaction variables, the dummy is expected to provide information on the effect of being a migrant entrepreneur outside IDs. The baseline effect of migrant entrepreneurship on firm survival has been reported by several empirical studies in different countries, showing that the ventures owned by migrants have a lower probability to survive in the medium-long term (Vinogradov and Isaksen, 2007; Abdessalam et al., 2004; Bream, 2010).
- *Gender*: a dummy equal to one when the entrepreneur is male. The empirical literature has generally found a positive impact of being a male entrepreneur on the survival possibilities of a firm (Cooper et al., 1994; Abdessalam et al., 2004). The lower survival chances of a female entrepreneur are generally justified by the limited possibilities to accumulate financial and human capital during their working life as employees, given the persistent wage gaps and gender discrimination that prevents possibilities of career (Cooper et al., 1994).
- *Age*: the entrepreneur's age is the only indirect proxy of human capital accumulation available for this empirical investigation, as data on education and previous managerial and working experience are not available in the archive used for the analysis. This variable is built following the approach proposed by Arribas and Vila (2007), identifying three age classes (18–29, 30–49 and older than 49 years) to capture the non-linear effect related to age. Such an approach is intended to incorporate the inverted U-shaped relationship between age and survival generally reported by the empirical literature (Preisendorfer and Voss, 1990): the survival chances tend to be very low for young founders, highest for middle aged entrepreneurs and decline again for aged founders.

Firm-level factors

- *Presence of financial constraints*: a dummy equal to 1 if the firm has access to credit during the first year of economic activity. The literature has shown that the presence of credit rationing plays

a key role in determining entry size and post entry growth possibilities of the firm (Aghion et al., 2007). Initial debt is found to decrease the chances of business failure, and a number of empirical investigations have shown that limited access to credit market has a negative effect on the survival chances of the firm (Musso and Schiavo, 2008).

- *Size*: this variable is measured through the number of salaried workers initially employed by the entrepreneur. The literature has generally found a positive relationship between initial size and the probability of survival (Dunne et al., 1989; Mata et al., 1995); however, Audretsch et al. (1999) reported an insignificant effect of size on survival likelihood.
- *Extension of market area served*: this categorical variable indicates the location of the relevant demand for firm products. When the target of the products sold by the firm is a national rather than a regional market the chances of surviving are expected to be higher (Kauermann et al., 2005).
- *Number of production phases*: this variable is measured as the difference between the production phases implemented by the firm and the median value identified for the sector where the firm operates. It is expected that a greater number of phases respective to the sector implies a more complex and diversified production structure that increases firm stability, generating positive consequences on the survival chances of the entrepreneur.
- *Capital intensity*: this variable is calculated as the initial value of the assets employed by the firm. Capital intensity is a proxy of the difficulty of start up availability of capital resources, that is found to significantly influence the chances of survival (Doms et al., 1995).
- *Supplier*: the probability of surviving is generally reduced for firms operating as suppliers, considering their dependency upon the choices of contracting firms. In some cases, this instability fosters an upgrading process in the value chain with a consequent transformation into final good producer in order to increase survival chances.

Environmental factors

- *Location within an industrial district*: the ID effect on firm survival is evaluated in this model by including two dichotomous variables, in order to discriminate between the two main typologies of IDs identified by the procedure proposed by Canello and Pavone (2016). The dummy *Traditional ID* is equal to 1 if the Local Labour Market Area where the firm is located is identified as a traditional or craft-oriented ID by the algorithm, while the dummy *Advanced ID* is equal to 1 if the Local Labour Market Area where the firm is located is identified as a multidimensional or service-intensive ID. Industrial districts are expected to have a twofold effect on survival. According to a number of contributions, a negative correlation exists between industrial agglomeration and survival: firms operating in densely concentrated areas are subject to high competition and tend to fail more frequently (Sorenson and Audia, 2000). However, in industrial districts, the role of the business climate, the quality of the local labour market and the diffusion of knowledge spillovers can have beneficial effects in terms of firm survival and growth rates.
- *Indigenous firms' entry rate*: this variable is calculated as the entry rate in industry i , LLMA j . A number of empirical works have found evidence of a positive correlation between entry and exit rates in industries, suggesting that lower barriers to entry increase the intensity of competition, resulting in higher failure rates (Dunne et al., 1988).
- *Migrant firms' entry rate*: entry barriers for migrant firms are not necessarily correlated with those existing for indigenous firms. For example, a particular location/industry can prove to be more attractive for migrants due to the presence of a particularly dense

Table 3
Cox PH model: relative risks of firm mortality among manufacturing sole proprietorships in Italy, period 2003–2011, industries: clothing, footwear and furniture production.

Variable	[A.1]		[A.2]		[A.3]	
	Hazard ratio	P-value	Hazard ratio	P-value	Hazard ratio	P-value
Individual factors						
Migrant	1.668***	0.000	1.657***	0.000	1.775***	0.000
Gender (1 if male)	0.891***	0.000	0.882***	0.000	0.880***	0.000
Age 18–29	0.828***	0.000	0.830***	0.000	0.832***	0.000
Age 30–49	0.668***	0.000	0.668***	0.000	0.668***	0.000
Firm-level factors						
Financial constraints (1 if not constrained)	0.838***	0.000	0.830***	0.000	0.835***	0.000
Size (initial number of employees)	1.062***	0.000	1.059***	0.000	1.059***	0.000
Number of production phases	0.984***	0.000	0.985***	0.000	0.985***	0.000
Extension of market area served	0.973***	0.000	0.974**	0.013	0.973**	0.013
Capital intensity (physical asset value)	0.878***	0.000	0.875***	0.000	0.876***	0.000
Supplier	1.089***	0.000	1.101***	0.000	1.101***	0.000
Environmental factors						
Traditional industrial district	1.019	0.586	1.007	0.845	1.005	0.893
Migrant * traditional industrial district	1.060	0.156	1.139***	0.003	1.141***	0.003
Advanced industrial district	0.951	0.384	0.959	0.466	0.956	0.433
Migrant * advanced industrial district	1.304***	0.000	1.306***	0.001	1.320***	0.000
Entry rate					1.336**	0.038
Entry rate (migrant firms)					0.942***	0.000
Migrant * entry rate (migrant firms)					1.032***	0.000
Industry dummies	Yes		Yes		Yes	
Territorial dummies	Yes		Yes		Yes	
Cohort dummies	Yes		Yes		Yes	
Observations	28,577		25,531		25,392	

Source: Author's elaborations on Italian Ministry of Economy and Finance Annual Survey data.

ethnic enclave which provides financial resources for aspiring entrepreneurs and generates local demand for new products.

A set of industry dummies has also been used to evaluate the sectoral effects. Finally, two interaction variables between the migrant variable and the ID typologies dummies have been included into the model to test the main research question, i.e. whether locating within an industrial district has a significant and positive effect on the survival probabilities of a migrant firm. Each financial data used to build the explanatory variables has been deflated using production price indexes of each manufacturing sector considered.

5.2.2. Results

The results of the proportional hazard model are reported in Table 3. Three different specifications have been estimated to evaluate the stability of the model: in all cases, hazard ratios greater than 1 indicate that the risk of failure is increasing with the covariate, while ratios less than one imply decreased risk. The results of the first specification (Model A.1) show that the coefficients of most covariates are significant and the patterns are consistent with expectations. Regarding the individual characteristics, it is worth noting that being a migrant firm has a particularly strong and negative effect on the probability to survive: given the model includes interaction effects, the coefficient of the variable 'migrant' should be interpreted as the effect of being a migrant on the probability of surviving outside an industrial district. As far as firm-level characteristics are concerned, a particular key role is played by credit constraints: when an entrepreneur receives financial support to start his or her business, the chances of being unsuccessful decrease significantly, confirming the relevance of credit constraints for micro and small firms within the Italian context. The analysis of the environmental characteristics shows that the ID effect is different for indigenous and migrant firms. After controlling for a relevant number of individual and firm-level factors, this effect appears not to be significant for indigenous firms' survival chances both in traditional and advanced forms of industrial districts. On the other hand, locating a business inside an advanced industrial district appears to

be detrimental for the survival chances of a migrant firm, while no significant effect is detected inside traditional industrial districts.

The analysis of the recent evolutionary paths taken by the industrial district of Prato, implemented in the concluding part of Section 4, suggests that the result of the latter interaction effect might be influenced by the presence of this ID among the traditional industrial districts identified by Canello and Pavone (2016): in this local context, the emergence of a parallel district controlled by the Chinese enclave with its own rules and division of labour process has created a peculiar context which is not comparable with the general trend. Therefore, the same specification has been estimated again excluding all firms located in this district, in an attempt to evaluate the validity of this theoretical assumption. The results of Model A.2 appear to confirm this claim: specifically, the value and the significance of all coefficients remain stable, while the interaction term Migrant * Traditional ID becomes significant and positive, confirming that a general negative ID effect for migrant firms exists also in traditional forms of IDs.

In the third specification (Model A.3), indigenous and migrant firms' entry rates are included within the model, while maintaining the firms located in Prato out from the sample. Controlling for entry rates is crucial to ensure that the coefficients of interaction terms are not distorted by spurious effects associated with lower entry barriers, enabling a certain number of unskilled entrepreneurs to locate their businesses inside IDs. The inclusion of these variables does not undermine the stability of the original specification, while adding further information on the effect of entry barriers on survival chances: both for indigenous and migrant firms, the presence of limited barriers to entry in the location/industry where the business is set up has a negative effect on the probability of survival. For the former group, this result confirms the previous findings of the literature, suggesting a relevant correlation between entry and exit rates motivated by the presence of a highly competitive environment and the presence of unskilled entrepreneurs that are pushed out of the market. The results for migrant firms is more surprising, suggesting that a similar process takes place for this subgroup of entrepreneurs: locating a business in a place where

Table 4
AFT model: relative probabilities of survival among manufacturing sole proprietorships in Italy, period 2003–2011, industries: clothing, footwear and furniture production.

Variable	[A.1]		[A.2]		[A.3]	
	Coefficient	Std. err.	Coefficient	Std. err.	Coefficient	Std. err.
Individual factors						
Migrant	-0.413***	(0.018)	-0.418***	(0.019)	-0.471***	(0.028)
Gender (1 if male)	0.093***	(0.013)	0.104***	(0.015)	0.106***	(0.015)
Age 18–29	0.154***	(0.019)	0.157***	(0.020)	0.155***	(0.020)
Age 30–49	0.327***	(0.015)	0.338***	(0.016)	0.337***	(0.016)
Firm-level factors						
Financial constraints (1 if not constrained)	0.141***	(0.016)	0.154***	(0.018)	0.148***	(0.018)
Size (initial number of employees)	-0.046***	(0.002)	-0.046***	(0.002)	-0.045***	(0.002)
Number of production phases	0.013***	(0.002)	0.012***	(0.002)	0.012***	(0.002)
Extension of market area served	0.018**	(0.007)	0.017**	(0.008)	0.017***	(0.008)
Capital intensity (physical asset value)	0.100***	(0.004)	0.107***	(0.005)	0.105***	(0.005)
Supplier	-0.070***	(0.016)	-0.045***	(0.003)	-0.045***	(0.003)
Environmental factors						
Traditional industrial district	-0.012	(0.003)	-0.003***	(0.026)	-0.002	(0.027)
Migrant * traditional industrial district	-0.041	(0.030)	-0.097***	(0.034)	-0.099***	(0.034)
Advanced industrial district	0.043	(0.042)	0.037	(0.044)	0.039***	(0.044)
Migrant * advanced industrial district	-0.206***	(0.060)	-0.212***	(0.062)	-0.220***	(0.062)
Entry rate					-0.266**	(0.115)
Entry rate (migrant firms)					0.046***	(0.014)
Migrant * entry rate (migrant firms)					-0.024***	(0.007)
Industry dummies	Yes		Yes		Yes	
Territorial dummies	Yes		Yes		Yes	
Cohort dummies	Yes		Yes		Yes	
Observations	28,577		25,531		25,392	

Source: Author's elaborations on Italian Ministry of Economy and Finance Annual Survey data.

migrant entrepreneurial rates are higher reduces the chances to accrue the benefits of serving a niche market (when the demand is driven by the ethnic community) or to exploit the advantages of being a migrant when the target is the mainstream demand. In general, the presence of strong ethnic networks in a particular locality is not necessarily beneficial for migrant firms, as it enhances the creation of sub-networks where strong ties prevail over weak ties, promoting group-thinking and over-embeddedness processes and encouraging risk-aversion attitudes and lack of innovativeness (Basu, 2008).

The results of the main specifications are confirmed by the robustness test implemented using the parametric duration approach: this test has been conducted through the estimation of the same three specifications proposed for the Cox PH model, including an identical set of explanatory variables in each specification. The results of the empirical tests are reported in Table 4: the interpretation of the coefficients in this model is different from the PH model, as a positive sign means that the variable has a positive effect on the probability to survive. In all cases, the results confirm the main findings reported for the PH model: migrant firms display lower chances of survival and appear to be even more fragile when they locate inside an industrial district.

5.3. The performance of migrant firms after their start-up period: empirical results and discussion

Assessing the existence of a negative ID effect for migrant firms in terms of survival is not sufficient to state the validity of the theoretical framework specified in the previous sections. The higher failure rates found among migrant firms inside IDs might be explained by an evolutionary process taking place in these areas which selects the most skilled entrepreneurs and drops out the weakest competitors. Once the most fitted migrant entrepreneurs succeed in integrating within the local network, they could benefit from the local industrial atmosphere and display better economic performances. This considered, the second part of the empirical analysis is focused on a sub-sample of sole proprietorships established in Italy during

the period 2003–2011 and still active after their start-up period, in an attempt to evaluate whether the district gap persists even for this subsample of the initial population: the model is estimated through ordinary least squares using value added per employee as response variable and a set of explanatory variables which is analogous to that identified for the duration analysis. A sensitivity test is performed by implementing the same type of estimation with three different subsamples, i.e. those firms survived after 3, 4 and 5 years. The results of the estimations are presented in Table 5. The coefficients of almost all covariates are significant and the sign is that expected: interestingly, the effect of most variables is the same on both survival and performance, i.e. when a factor increases the survival chances of a firm it also has a positive impact on performance after its start-up period. However, the behaviour of the key variables of the models is quite different: the effect of the migrant dummy is not significant in all the three specifications, suggesting that migrant entrepreneurs succeeding in surviving after their start-up period manage to obtain the same performances of Italian firms when they locate outside industrial districts. This result is not surprising, as individual skills are often sufficient to determine migrants' entrepreneurial success in contexts where accumulation of social capital is not strictly required to run a business. The same pattern is not identifiable in industrial districts, where a skilled outsider is not guaranteed to succeed if he or she does not manage to integrate within the social and economic network. The results of the model show that a clear gap between migrant and indigenous entrepreneurs exists inside industrial districts: indeed, while Italian firms benefit from the Marshallian industrial atmosphere achieving better performances after their start-up period, migrant firms do not manage to exploit the same advantages and in some cases appear to perform even worse than in other locations. This trend persists over time, although it tends to alleviate after 5 years.

Overall, the results of the empirical analysis show the presence of different survival rates and performances for migrant firms inside industrial districts. Interestingly, the differential effect tends to persist even among the most talented entrepreneurs who manage to survive after the start up period. The results also highlight

Table 5
Performance of manufacturing sole proprietorships survived after their start-up period in Italy, industries: clothing, footwear and furniture production, Y= value added per employee.

Variable	Firms survived after 3 years		Firms survived after 4 years		Firms survived after 5 years	
	Coeff.	Std. err.	Coeff.	Std. err.	Coeff.	Std. err.
Intercept	8.015***	(0.075)	7.986***	(0.083)	7.878***	(0.096)
Individual factors						
Migrant	0.007	(0.040)	0.059	(0.048)	0.076	(0.060)
Gender (1 if male)	0.085***	(0.021)	0.111***	(0.024)	0.073**	(0.029)
Age 18–29	–0.104***	(0.030)	–0.146***	(0.037)	–0.106**	(0.048)
Age 30–49	–0.045**	(0.020)	–0.037*	(0.021)	–0.008***	(0.024)
Firm-level factors						
Financial constraints (1 if not constrained)	0.112***	(0.018)	0.101***	(0.020)	0.079***	(0.023)
Number of employees	0.474***	(0.021)	0.506***	(0.024)	0.542***	(0.028)
Extension of market area served	0.161***	(0.010)	0.134***	(0.011)	0.137***	(0.013)
Capital intensity (physical asset value)	0.090***	(0.006)	0.090***	(0.007)	0.098***	(0.009)
Supplier	0.176***	(0.018)	0.159***	(0.020)	0.152***	(0.023)
Environmental factors						
Traditional industrial district	0.124***	(0.028)	0.163***	(0.030)	0.084**	(0.034)
Migrant * traditional industrial district	–0.354***	(0.043)	–0.364***	(0.051)	–0.306*	(0.065)
Advanced industrial district	0.201***	(0.049)	0.214***	(0.052)	0.152***	(0.059)
Migrant * advanced industrial district	–0.217**	(0.100)	–0.318**	(0.125)	–0.083	(0.184)
Natality rate	–0.927***	(0.160)	–0.722***	(0.176)	–0.715***	(0.205)
Natality rate (migrant firms)	0.005	(0.018)	–0.045**	(0.021)	–0.045*	(0.025)
Migrant * natality rate (migrant firms)	0.030***	(0.007)	0.033***	(0.008)	0.039***	(0.009)
Industry dummies		Yes		Yes		Yes
Territorial dummies		Yes		Yes		Yes
Cohort dummies		Yes		Yes		Yes
Observations		11,952		9039		6458
R ²		0.18		0.19		0.20

Source: Author's elaborations on Italian Ministry of Economy and Finance Annual Survey data.

the presence of a negative ID effect, generating both higher failure rates and worse performances for migrant firms inside these local systems. This scenario is consistent with other recent analyses (Barberis, 2008), suggesting that the great majority of migrant firms are fragile and generally not capable to benefit from the industrial atmosphere that characterizes most industrial districts. The negative ID effect is detected among migrant firms located in the traditional forms of districts as well as in those operating inside advanced IDs, characterized by the relevant presence of leader firms and/or service activities: these typologies of districts, which are generally more effective in translating knowledge coming from external sources (Lazerson and Lorenzoni, 1999), appear not to be equally capable to exploit the potential benefits associated with the presence of successful migrant entrepreneurs. In light of the recent findings in the literature, it could be inferred that this outcome is probably hampering the chances of several industrial districts to increase their resilience potential, limiting their resistance to future structural shocks.

The results of this empirical investigation suggest the need for policy makers to focus on place-based policy interventions in order to foster migrant entrepreneurship. Specifically, the traditional forms of public support are likely to be more effective for migrant entrepreneurs outside industrial districts, where the performance gap with indigenous firms is generally filled after the start-up period: in such cases, the presence of measures aimed to improve access to financial capital and to reduce linguistic and regulatory barriers is likely to generate the expected positive impact on the survival of newly established migrant firms (OECD, 2014). The majority of local and national measures implemented in Italy in the recent past appear to follow the aforementioned approach: in this respect, a remarkable example is the 'Start it up' initiative, implemented by 10 Italian Chambers of Commerce and aimed at providing support to migrants to build up their business plans and gather information regarding the legislative and economic context (Unioncamere, 2012). However, the same approach may not be necessarily effective in other local contexts, such as industrial

districts, where the self-organizing nature of the local economic networks limits the effectiveness of the traditional top-down policy measures: in such cases, the governance structure needs to be rearranged from the bottom in order to transform the established routines and norms and to make them more suitable to accommodate the emergence of a new global network characterized by a diversified set of local agents. The integration of migrant firms in industrial districts is a long and complicated process that cannot be enforced by top down measures, but rather stimulated by bottom-up initiatives promoting integration and enhancing the diffusion of new norms driving this evolutionary process throughout local communities (see for example the Ceasefire initiative promoted in Chicago and reported by Zolli and Healy, 2012). The structure of certain typologies of industrial districts, such as the multidimensional form (Canello and Pavone, 2016), appears to be particularly suitable to facilitate this process: in these contexts, where the presence of large firms is particularly relevant, a limited number of firms can act as translational leaders, fostering the assimilation process of the new entrants.

6. Conclusion

This paper provides new empirical evidence of the survival and performance dynamics of migrant firms in Italian industrial districts: in these contexts, the successful performance of migrant entrepreneurs is expected to generate sustained benefits to the local network in terms of trade flows and diverse knowledge diffusion, in addition to providing a domestic alternative to offshore outsourcing. The investigation proposed in this work contributes to fill the existing gap in the literature of migrant entrepreneurship, addressing the need for new evidence on migrant firms (tm) performance in specific contexts that is claimed by both the academic literature and policy makers (Baycan-Levent and Nijkamp, 2009; Desiderio and Mestres-Domenech, 2011). Contrary to previous empirical research on this topic, which is generally focused on small samples, this investigation is implemented on a large

database extracted from the Italian Ministry of Economy and Finance Annual Survey. The study explores migrant firms' performance looking at different local systems within the same country: indeed, firms facing the same legislative and institutional framework can still perform differently given the peculiar conditions of the local environment in which they operate. This approach is in line with the recent trend of policy makers promoting regional rather than national or supra-national interventions to support migrant entrepreneurship, regardless of the source of the funding used (Desiderio and Mestres-Domenech, 2011, p. 161).

The results of the empirical analysis show the presence of a wide differential between indigenous and migrant firms, resulting in lower survival rates for the latter group of entrepreneurs: interestingly, this gap tends to widen in industrial districts, where migrant firms are more likely to locate their businesses. The negative ID effect is evident also in terms of worse performances and tends to persist even among the most talented entrepreneurs who manage to survive after the start up period. The results of this empirical investigation are supported by recent analyses focused on specific industrial districts (Barberis, 2008), suggesting that the benefits from locating in these local systems are available for a limited number of outsiders succeeding in breaking into the core of the local network, while the great majority of migrant firms are fragile and generally relegated to the periphery of the network. It is worth noting that the negative ID effect is evident not only in the traditional forms of districts, but also in the more advanced organizational systems, characterized by the presence of leader firms and/or by the diffused presence of service activities: although these organizational structures are generally regarded as more effective in translating knowledge coming from external sources (Lazerson and Lorenzoni, 1999), the same effectiveness appears not to be evident when it comes to exploiting the potential benefits generated by the presence of successful migrant entrepreneurship. These findings suggest that Italian IDs are failing to exploit these advantages, thus missing the opportunity to increase their resilience potential that would help them in facing future shocks with greater chances of resistance.

The results of this empirical investigation suggest the importance of place-based policy interventions to foster migrant entrepreneurship. Outside industrial districts, where the performance gap between migrant and indigenous firms is filled if the firm manages to survive after its start-up period, the traditional forms of public support are likely to be effective in increasing the chances of success of migrant entrepreneurs: these measures, aimed to improve access to financial capital and to reduce linguistic and regulatory barriers, are likely to positively affect survival rates among migrant firms during their start-up period (OECD, 2014). The majority of local and national measures implemented in Italy in the recent past appear to follow the aforementioned approach: in this respect, a remarkable example is the 'Start It Up' initiative, implemented by 10 Italian Chambers of Commerce and aimed at providing support to migrants to build up their business plan and to gather information regarding the legislative and economic context (Unioncamere, 2012). Inside industrial districts, the scope for top-down policy measures to foster migrant entrepreneurship success is limited, considering the self-organizing nature of these systems: in such cases, the governance structure needs to be rearranged from the bottom in order to accommodate this changing process. The radical transformations fostered by globalization should force IDs to overcome the semi-automatic code of conduct based on routines and established norms, introducing a more structured system of semi-conscious governance based on collective codified or tacit action by the local community. The integration of migrant firms requires changing norms, which is a long term process that cannot be enforced by top down measures, but rather by bottom-up initiatives promoting integration and enhancing the diffusion of

new norms driving this evolutionary process throughout local communities. The structure of certain typologies of industrial districts, such as the multidimensional forms (Canello and Pavone, 2016), appears to be particularly suitable to facilitate this process: in such cases, where the presence of large firms is particularly relevant, a limited number of firms can act as translational leaders, fostering the assimilation process of the entrants.

The empirical analysis proposed in this paper can be further extended by focusing on the reasons behind the poor performance of migrant firms inside industrial districts. As highlighted by Sahin et al. (2011), the success of a migrant firm is often explained by a combination of their individual ability and their capability to accumulate social capital. However, in regional contexts characterized by locally embedded networks, this accumulation process should not be limited to the connections established with the local ethnic group (*bonding* social capital), but rather extended to the members of the host economic community: the effects of this type of *bridging* social capital, which has shown to increase the migrant's chances in the labour market (Lancee, 2012), are expected to be visible also in terms of entrepreneurial success. In fact, a lack of investment in *bridging* social capital inside industrial districts can expose the migrant entrepreneur to cheating practices by indigenous firms, enhanced by the absence of the same strict sanctioning system operating in the core of the domestic network. These practices can have a negative impact on the survival chances of migrant firms. In this respect, the implementation of an ad-hoc survey among migrant entrepreneurs with the inclusion of a specific proxy to measure the amount of social capital accumulated by migrants is a very promising endeavour for future research on this topic.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.respol.2016.05.006>.

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