The survival of firms founded by immigrants: institutional distance between home and host country and experience in the host country

José Mata, Professor of Strategy

University of Lausanne - Faculty of Business and Economics (HEC)

Address: Internef Building, CH-1015 Lausanne, Switzerland

Email: jose.mata@unil.ch

and

Claudia Alves, Researcher (corresponding author)

Nova School of Business and Economics

Address: Campus de Carcavelos, Rua da Holanda, n.1, 2775-405 Carcavelos, Portugal

Email: claudia.alves@novasbe.pt

Running Head: The survival of firms founded by immigrants

Keywords: survival, exit, immigrants, liability of foreignness, institutional distance

The survival of firms founded by immigrants: institutional distance between home and host country and experience in the host country

Abstract

Research summary:
We propose that the liability of foreignness applies to individuals and not only to firms. To identify such a liability, we study entrepreneurial firms created by natives and immigrants. Firms created by immigrants have a lower rate of survival than those founded by natives. Work experience in the host country and size of the immigrant's national community improves the chances of survival of firms founded by immigrants, in particular for firms founded by immigrants from institutionally distant countries. In contrast, the impact of firm age on survival is not significantly different for firms created by natives and immigrants. This indicates that learning by individuals before the creation of firms is more important than learning that occurs at the firm level after firms have been created.

Managerial summary:
We explore how the characteristics of individuals running firms affect firm performance. We focus on foreignness and study the chances of survival of firms created by immigrants. Firms created by individuals that have longer work experience in the host country and that are integrated in larger national communities are more likely to survive than those created by their counterparts with less experience and smaller communities. The effect is stronger for immigrants from countries with different institutions to those of the host country. This indicates that, when choosing new countries to operate in, it is important to carefully choose the management team and the location within the host country, in particular if the countries being considered are relatively dissimilar to the firm's home country.

Introduction

Strategic management research has long established that foreign owned firms are disadvantaged relative to local firms and thus suffer from liabilities of foreignness (LOF) (Zaheer, 1995). More recently, Johanson and Vahlne (2009) proposed that such liabilities apply more generally to outsiders. More than foreignness, it is the lack of integration in the local economic fabric that creates obstacles to doing business, which suggests that differently integrated foreign firms may suffer from liabilities to a different extent. Other questions that have been raised in the last decade are whether the effect of multinationality could compensate that of foreignness (Nachum, 2009) and to what extent is foreignness a liability or an advantage (Stahl *et al.*, 2016). While the debate around the LOF has been established

with the multinational firm in mind, studies such as Mezias (2002) have noted that the presence of local managers attenuates the extent to which foreign firms suffer from such liabilities. This is not surprising in light of the recognition that upper echelons theory gives to the role that individual managers play in the strategy and performance of firms (Hambrick & Mason, 1984; Nadkarni & Herrmann, 2010). In this literature, the international dimension of top management teams has received attention from the perspective of the international experience of managers (Carpenter, Sanders, & Gregersen, 2001) and, more recently, from that of the diversity of nationalities among top management teams (Nielsen & Nielsen, 2013).

Our study brings together these two streams of literature. It puts the individual at the center of the LOF literature and brings an explicitly international dimension to the upper echelons literature. We propose that the LOF affect people living in countries other than their own, and not only firms. To the extent that people suffering from these liabilities have influential positions in firms, their individual liabilities extend to firms.

We study the survival of entrepreneurial firms to identify the effect of the LOF among individual entrepreneurs. Entrepreneurial firms created by immigrants are particularly adequate to appraise the effect of the LOF among individuals. Upper echelons theory stresses that individual characteristics of managers are mostly important when managers have a high degree of discretion in their decision-making (Crossland & Hambrick, 2007, 2011). Large corporations have routines and processes that partially insulate them from the influence of individual decision makers. Entrepreneurial firms, in contrast, are typically small firms in which the founders exert particularly strong influence (Barringer, Jones, & Neubaum, 2005). For this reason, the link between the characteristics of individual founders and firm outcomes should be more direct and pronounced in the context of entrepreneurial firms than in their multinational counterparts (Reuber & Fischer, 1997). Second, entrepreneurial firms are

unlikely to benefit from significant "ownership advantages" that characterize multinationals and that complicate the identification of the liabilities (Nachum, 2009).

We hypothesize that immigrants suffer from LOF in the host country. Such liabilities are passed on to the firms that they create, such firms being less likely to survive than comparable firms created by natives. In one of the earliest empirical studies on LOF Zaheer and Mosakowski (1997) found that foreign firms exited more than comparable local firms and that the difference in exit decreased over time as foreign firms became more experienced in the host country. We argue that the LOF of individuals are reduced with work experience in the host country, and that firms created by immigrants that have been in the country for longer are subject to lower exit rates than those created by recently arrived immigrants. Immigrant entrepreneurs can also benefit from being part of large national communities, as these communities provide resources which immigrants typically have difficulty accessing (Kalnins & Chung, 2006). However, not all firms created by immigrants are confronted with the same liabilities in host countries and differences between home and host countries exacerbate the LOF (Eden & Miller, 2004). We argue that the benefit of work experience and of national communities is particularly valuable for immigrants from countries that are less similar to the host country. We, therefore, propose a new lens for analyzing the effect of institutional differences between countries, one that sees institutional differences as moderators of the relationship between survival and the factors that affect it.

To test our hypotheses, we study the survival of matched samples of firms created by immigrant and native entrepreneurs in Portugal during the period 2002 – 2007. Consistent with our hypotheses, we find that firms created by immigrants are less likely to survive and that work experience and the size of the national community matter for the survival of the firm, in particular for immigrants from countries that are more dissimilar to the host country. Our results suggest that those considering entrepreneurship in a foreign country should

carefully evaluate if they possess adequate resources for running a business in that country. Having gained work experience in the country and having a large community of the same nationality may be particularly useful for those attempting entrepreneurship in a country which is relatively different from their own.

Literature Review and Hypotheses

Liabilities of firms and individuals

Previous research has emphasized that foreignness leads foreign firms to be less profitable (Zaheer, 1995), exhibit poorer performance (Miller & Parkhe, 2002), and experience greater exit rates (e.g., Zaheer and Mosakowski 1997) than their domestic counterparts. The literature on international entrepreneurship has also acknowledged that, for international new ventures, the LOF add to the liabilities of smallness and newness (Zahra, 2005). The liability of newness (Stinchcombe, 1965) means that, irrespective of their ownership, firms are confronted with lower probabilities of exit over time. In their analysis of the LOF Zaheer and Mosakowski (1997) observed that this goes faster for foreign firms than their domestic counterparts, from which they concluded that the LOF decreased over time.

While the finding that the international experience of firms impacts their success in new international markets suggests that the source of this decrease in LOF is organization specific (Delios & Henisz, 2003; Erramilli, 1991), several studies suggest that individuals matter for the magnitude of the liabilities. Focusing on business organizations that do cross-border business from their inception, the literature on international entrepreneurship argues that in such new organizations which lack experience of their own, the past experience of the founders could be a substitute for this lacking organizational experience (De Clercq *et al.*, 2012; Oviatt & McDougall, 1994). Conversely, the experience of managers in the local environment may be decisive, even in established and experienced organizations. For example, Mezias (2002) found that, while foreign firms operating in the US faced more labor

suits in American courts than their local counterparts, the presence of Americans among the foreign firm's top officers reduced the number of these labor suits.

This fits well with the view advanced by upper echelons theory that the personality and attributes of CEOs (and TMTs) exert significant influence on the strategy and performance of firms even in large, public corporations (Hambrick & Mason, 1984; Nadkarni & Herrmann, 2010), in particular when managers have a high degree of discretion in their decision making (Crossland & Hambrick, 2007, 2011). Discretion is maximum in small entrepreneurial firms, and therefore the characteristics of the individual owner/manager in such small firms are likely to be most influential to the decisions taken.

The liability of foreignness of individuals

The LOF is thus not exclusive to firms; people are also affected. When foreigners have managerial positions in firms, these liabilities extend to their firms. Foreigners are less able to handle local situations because when they arrive in a cultural context that is different from their own, they go through a "culture shock" that prevents them from functioning effectively (Berry, 1997). Such a shock is related to the cultural distance between the societies of origin and settlement and adaptation takes time (Portes & Sensenbrenner, 1993).

Cultural distance increases adaptation difficulties, both for newcomers (Ward & Searle, 1991) and natives (Berry, 1976). Immigrants or expatriates have a difficult time in adapting to the new society, but foreign norms are also subject to misinterpretation from locals (Johnson, Lenartowicz, & Apud, 2006). This leads to negative attitudes towards foreigners, which are well documented in the immigration literature (Mayda, 2006) and are also recognized in the literature on multinationals. Individual "inpatriate" managers – foreigners working at establishments in the home country of organizations – have been found to be stigmatized by native managers. Harvey *et al.* (2005) and Mezias and Mezias (2007)

showed that foreigners working in one US firm received lower salary increases relative to comparable US citizens in the same firm.

Immigrant adaptation is related to the country of origin. Sociologists like Portes and Zhou, (1993) emphasize that governments and societies of host countries hold different attitudes toward each nationality, and these attitudes exert a great influence on the degree of adaptation. Different national communities also pursue dissimilar strategies of adaptation, seen by cultural psychologists as a consequence of the interplay between the value of maintaining one's identity and that of maintaining relationships with the larger society (Berry, 1976).

Not all individuals from the same culture have the same capacity to adapt to a new culture. Research in cultural psychology acknowledges that adaptation to culture shock has both a group and an individual dimension. The latter is related to the person's ability to adapt to different cultures, and has been labeled cultural intelligence (Earley, 2002) or cultural competence (Johnson *et al.*, 2006). However, even this competence in dealing with others has been shown to be related to the individual's culture (Gunkel, Schlägel, & Engle, 2014). The group dimension, called sociocultural adaptation, has been reported to improve with the length of contact with the other culture (Berry, 1997; Ward & Kennedy, 1993), but assimilation can take very long, possibly even generations (Waters & Jimenez, 2005).

Liabilities of foreignness for individuals and exit of firms created by immigrants

In her seminal paper, Zaheer (1995) identified four sources of LOF: unfamiliarity with the local environment, lack of legitimacy, constraints imposed by host countries, and costs associated with coordinating units at a distance. The first three apply to people living in foreign countries and can be transmitted to firms in which they have a say.

Unfamiliarity with local practices creates disadvantages. Entrepreneurial firms rely on the knowledge that entrepreneurs have on how to do business rather than on knowledge

residing in the organization (Shrader, Oviatt, & McDougall, 2000). As human capital and experience lose value when individuals go abroad (Friedberg, 2000) and their knowledge is key for the recognition of business opportunities (Shane, 2000), immigrants will be at a disadvantage relative to natives in identifying good business opportunities in the host country. Lack of knowledge relative to labor market practices (Fang *et al.*, 2013) creates difficulties to manage employees. Unfamiliarity with political habits in the host country (Maxwell, 2010) makes it more difficult to anticipate political decisions that affect the business environment.

Foreigners may also be seen as illegitimate and suffer from discrimination. The examples given by Harvey *et al.* (2005) and Mezias and Mezias (2007) of discrimination within multinationals are corroborated by many studies that show the pervasiveness of discrimination in the labor market (Chiswick, 1978), from consumers (Nardinelli & Simon, 1990) and in general attitudes towards immigration (Mayda, 2006). Discrimination is a consequence of the lack of legitimacy, and legitimacy is critical for accessing critical resources for survival and growth (Zimmerman & Zeitz, 2002). Immigrants' lack of legitimacy has two components. The first is rooted in the perceptions and attitudes held by native societies towards different national groups (Berry *et al.*, 1989), and these change little over time. The second is specific to each individual and evolves as specific individuals develop their relationships in the host country. While specific individual immigrants may gain legitimacy over time (Moghaddam, Taylor, & Lalonde, 1987), the perceived legitimacy of national communities evolves slowly. When discrimination is explicitly established in legal dispositions (Waldrauch & Hofinger, 1997), foreign citizens are confronted with more restrictive legal conditions than natives for operating their own businesses or accessing professions (Iredale, 2001).

These arguments lead us to hypothesize that:

Hypothesis 1: Firms created by immigrants have higher exit rates than firms created by native entrepreneurs.

Reducing the LOF: experience and community size

The literature on the LOF proposes that, similar to the liability of newness, such liabilities disappear with time. Zaheer and Mosakowski (1997) found that foreign trading rooms are more likely to exit than domestic ones but, with long enough tenure, their exit rates approach those of their local counterparts. This suggests that the costs of doing business decline as firms gain familiarity and legitimacy in the local environment. This effect may apply even among domestic firms. Dahl and Sorenson (2012) found that firms operating in locations where their founders have lived longer tend to survive longer and have greater profits.

Firms attempt to build legitimacy by conforming to the local environment (Suchman, 1995) and the same applies to individuals. Learning about the host country can be seen as a pre-requisite for gaining legitimacy as one can only conform to something that is known. One's own experience, access to relevant resources, and the magnitude of the gap that has to be filled are critical ingredients for becoming a competitive player in the host country.

Work experience in the host country

As learning does not happen overnight, the length of stay in the host country plays a role in the development of capabilities applicable to that country (Barkema, Bell, & Pennings, 1996). The longer the host country experience, the easier it is to adapt to the local environment (Luo, 1997) and to develop social knowledge and harmonious relationships with local actors (Zhou, Wu, & Luo, 2007). As a consequence, firms that have been in the host country for longer have been found to survive longer and perform better than newcomers (Delios & Beamish, 2001).

The work experience of immigrants in the host country helps to dissipate the LOF of individuals and helps them to integrate into the host economy. The wage gap between natives

and foreign-born individuals decreases over their stay in the host country (Chiswick, 1978), which may come from being better acquainted with the host country labor market and being able to better use its mechanisms for job searching. Indeed, Nee, Sanders, and Sernau (1994) report that increases in the number of years and the number of jobs held by Asian immigrants in the US lead such immigrants to move away from personal ties and to rely more on impersonal means to search for jobs, such as job ads and the Internet. According to the findings of Fang *et al.* (2013) these impersonal means of job searching tend to alleviate the effect of the LOF that exists when immigrants seek jobs using personal connections and recruitment agencies.

Work experience enlarges the entrepreneur's social networks, which have been found to increase capabilities for opportunity identification both in general (Ardichvili, Cardozo, & Ray, 2003) and in international business environments (Ellis, 2011). Subsequent exploitation of these opportunities is also enhanced by work experience. Experience not only brings better knowledge about labor market institutions and helps when dealing with future employees, but is also critical for managing a new firm, as prospective entrepreneurs learn much about business organizations from their employers (Klepper & Sleeper, 2005).

Therefore, our next hypothesis is as follows:

Hypothesis 2: Firms created by immigrants with long host country work experience have lower exit rates than those created by immigrants with short host work country experience.

Immigrant community size

Adaptation is asymmetric for immigrants and natives. For immigrants, adaptation is largely individual and depends on the extent of the individual's contact with the new society. Natives tend to see immigrants from each origin as being homogeneous. Out-groups (immigrants in our case) tend to be regarded as homogenous by the in-group, an effect that is exacerbated if

the out-group has low status as compared to the in-group (Brauer, 2001), as in our case. Contacts with immigrants help natives to learn about them and reduce prejudice (Lee and Fiske, 2006; Longhi and Markaki, 2013), but because the out-groups tend to be perceived as homogeneous, the impact of the contact with specific individuals will propagate slowly to the whole national group. Immigrant minorities with many members tend to be seen as more legitimate by natives than those with fewer members (Schneider, 2008), as "larger immigrant group size facilitates intergroup contact, which was negatively associated with perceived threat and subsequent anti-immigrant attitudes." (Schlueter and Scheepers, 2010 p. 285).

On the other hand, the role of ethnic communities in supporting the exploitation of businesses created by their members has been recognized in the literatures on ethnic entrepreneurship (Raijman & Tienda, 2000) and international management (Miller *et al.*, 2008). Ethnic communities create markets for firms owned by members of the same ethnic group (Evans, 1989), firms operating in environments with larger ethnic communities finding it easier to find demand for their services (Miller *et al.*, 2008). Community networks can also function as providers of important resources (Birley, 1985), and even competing firms from the same ethnic identity can be helpful, as they are more inclined to share information about the local environment (Miller *et al.*, 2008). These two factors should improve the survival and growth of businesses (Brüderl & Preisendörfer, 1998). The few studies that have analyzed the survival of firms created by minorities have found a positive effect of community size and proximity to other firms of the same minority on survival (Kalnins and Chung, 2006; Miller *et al.*, 2008; Vermeulen and Brünger, 2014). We, therefore, argue that larger communities are beneficial to immigrant entrepreneurs as they increase immigrant legitimacy, and we hypothesize that:

Hypothesis 3: Firms created by immigrants in areas with a large national community network have lower exit rates than those created by immigrants in areas with a small community network.

Increasing the LOF: institutional distance

Not all immigrants are equally subject to the LOF. The interaction between agents from different countries creates a two-sided relationship between their institutional background and the host country's institutional profile. On the one hand, national institutional profiles affect foreigners' attitudes toward that country (Makino, Isobe, & Chan, 2004). Firms' choices regarding entry and ownership are affected by factors such as corruption, regulations, and expropriation hazards in the host country (Rodriguez, Uhlenbruck, & Eden, 2005), and the performance of foreign affiliates varies with the level of institutional development (Chan, Isobe, & Makino, 2008). On the other hand, agents' institutional background influences their behavior toward foreign environments. For instance, investors whose countries have high degrees of corruption may seek countries where corruption prevails rather than countries engaged in deterring this phenomenon (Cuervo-Cazurra, 2006).

Both formal and informal institutions create differences in the LOF that immigrants from different countries are confronted with. Formal institutions include property rights, constitutions, and laws (North, 1991). They can reduce the disadvantages that immigrants from some countries have relative to others by reducing the informational asymmetry that immigrants are confronted with, namely those from countries whose laws are similar to those in the host country. Formal institutions can also reduce the immigrants' lack of legitimacy. For example, international treaties can include provisions that extend the legal privileges of citizens from some foreign countries.

Informal institutions consist of sanctions, taboos, customs, traditions, and codes of conduct (North, 1991). They are related with the prevailing culture, of which an important

element is language. Countries that share the same language are often close in terms of implicit rules of behaviour, which facilitates economic transactions and tends to reduce the LOF. Sharing a common language increases international trade (Melitz, 2008) and foreign direct investment (Fajgelbaum, Grossman, & Helpman, 2014). Language plays an important role in the choice of immigration destination (Pedersen, Pytlikova, & Smith, 2008) and in immigrant earnings (Dustmann & Van Soest, 2002).

Firms from countries that are institutionally more distant will thus confront a greater LOF. While firms can adapt their strategies in order to reduce the LOF, with firms from more distant countries adopting more isomorphic strategies (Salomon and Wu, 2012), we argue that closeness in both formal and informal institutions will lead to a reduced LOF for immigrants, which leads us to hypothesize that:

Hypothesis 4: Firms created by immigrants from institutionally distant countries have higher exit rates than firms created by immigrants from institutionally close countries.

Interaction of institutional distance with work experience and with community size

Several studies (reviewed by Masgoret and Ward 2016) reveal that the length of the experience of immigrants in the host country is a critical factor for adaptation to the new culture, most learning taking place in the first years of residence in the new country. Another finding from the same review is that learning is more difficult for those that come from countries that are culturally less similar. One might think that those from countries that are more institutionally distant will find it harder to learn from experience.

Time may be important for those that come from more distant countries because learning takes place over longer periods of time. Cultural distance decreases knowledge transfer across organizations because distance creates ambiguity, which takes time to resolve (Simonin, 1999). As a consequence, immigrants from distant countries may benefit more from work experience in other organizations than those from more similar countries.

Being from a similar country may also create what O'Grady and Lane (1996) call the paradox of psychic distance. In their words, "assumptions of similarity can prevent executives from learning about critical differences". As they invest less in learning, time has a smaller effect.

This translates into our next hypothesis, which we formulate as:

Hypothesis 5: The exit of firms created by immigrants from institutionally distant countries is more affected by the length of host country work experience than the exit of firms created by immigrants from institutionally close countries.

As discussed before, a large ethnic community can help their members to gain legitimacy (Vermeulen & Brünger, 2014). Immigrant access to the resources of national communities, which are particularly critical for entrepreneurs (Nee *et al.*, 1994), is typically constrained by lack of legitimacy.

Immigrants from more distant countries may benefit more from being part of a strong national community than those from more similar countries. As put forward by Portes and Sensenbrenner (1993, p. 1329): "The more distinct a group is in terms of phenotypical or cultural characteristics from the rest of the population, the greater the level of prejudice associated with these traits, and the lower the probability of exit from this situation, then the stronger the sentiments of in-group solidarity among its members and the higher the appropriable social capital based on this solidarity. [… A] common use of this source of social capital is in the creation and consolidation of small enterprises. A solidary ethnic community represents, simultaneously, a market for culturally defined goods, a pool of reliable low-wage labor, and a potential source for start-up capital."

The size of the community is relevant because larger communities can provide more diversified sources of resources and markets that can economically sustain firms from their co-members. In this way, communities provide the legitimacy that is particularly critical for

immigrants from distant countries. Therefore, we argue that the benefit of belonging to a large community will be greater for immigrants who have greater LOF, and our next hypothesis is:

Hypothesis 6: The exit of firms created by immigrants from institutionally distant countries will be more affected by the size of the national community than the exit of firms created by immigrants from institutionally close countries.

Context

Our study uses data on immigrants that have set up their businesses in Portugal. Immigration in Portugal is relatively recent. The proportion of foreigners recorded in the Population Censuses has increased from 1% in 1991 to 2% in 2001 and 4% in 2011. This increase is due to the arrival of immigrants from countries that were not traditional sources of immigration. Citizens from Portuguese speaking African countries that were dominant (56%) in 2001, represented no more than 25% of the total number of foreign citizens in 2011, while those from Brazil were 14% and 29% in the same periods.

Judging from the literature on immigrant entrepreneurship, one might think that immigrants always come from countries that are less developed than the host country (see e.g., the nationalities studied in Portes and Rumbaut (2006, p.21), for the US and in Piperopoulos (2010) for Greece). However, in the EU the number of immigrants from other EU countries is almost one half of the total. While figures for Portugal are somewhat below average, EU immigrants still represent about 30% of the total and, as we shall see later, citizens from EU countries are overrepresented among those that create new businesses.

Portugal is institutionally closer to both members of the EU and to Portuguese speaking countries than to other countries. In the case of the EU, there is a greater closeness of formal institutions. Many economic laws being common across EU member countries, immigrants from EU countries have a better knowledge of the legal framework than those

from other countries. In addition, EU citizens cannot be legally discriminated against relative to natives, namely in terms of the freedom of permanence, work, and establishment. Both better knowledge and non-discriminatory requirements create lower LOF for them. In the case of the Portuguese-speaking countries, proximity is cultural. Immigrants from these countries have the advantage of speaking the same language as that used in the host country and are more likely to be at ease understanding the implicit rules of behaviour than other immigrants.

The unit of our analysis is the firm created and operated by immigrants. Our operational definition requires that firms employ paid labor, thus excluding self-employed individuals and ventures that employ only entrepreneurs and unpaid family workers. The number of such firms is not negligible and has increased in importance in comparison with the numbers of self-employed individuals, for both immigrants and natives. For natives, the proportion of employers in the population has gone up from 3.1% in 1981, to 6.2% in 1991 and to 9.8% in 2001. Immigrants show slightly higher figures, but the same evolution (5.1%, 7.7% and 10.2%). In contrast, the proportion of the self-employed in the population decreased during the same period. Comparable figures for the self-employed are 15.2%, 13.1% and 6.1% for natives and 8.9%, 11.4%, and 4.5% for immigrants (Oliveira 2008, p. 108).

Methods

Data

The data used in this study come from *Quadros de Pessoal*, a dataset that is obtained from a mandatory annual survey conducted by the Portuguese Ministry of Employment covering all firms employing paid labor in Portugal. The dataset includes information on all the individuals working at each firm, including their nationality and occupational status, which distinguishes between employees and employers (business owners). Owners are included

only if they do some work at the firm, thereby excluding individuals that may have a passive investment in the firm. In addition, the data have a longitudinal nature with unique numbers identifying firms and individuals over time. Such characteristics make this dataset a unique and excellent source to compare entry and survival of firms created by immigrant and native entrepreneurs. We identify new firms by locating the first year their identifier appears in the data and use data on individuals to identify the owners of such firms and their nationality.

We track firms that started operating with paid labor during the period 2002-2007. Although data are available from 1985 to 2009, we start in 2002 because information about nationalities is available only from this year and we stop in 2007 to have two subsequent years in which firms can be observed. With such a large database, there are inevitably some coding errors in the files. In particular, a temporary exit may occur for a number of reasons other than ceasing activities, a very likely reason being that the data were not transmitted to the Ministry of Employment before the date when the recording operations were closed. The number of cases in which a firm reappears in the file after an absence of more than one year is very small. To be on the safe side in identifying exits, we required that a firm be absent from the file for at least two years to be classified as a closure. We use only firms that started operations before 2007 so that they could be observed in 2008 and 2009.

Following the procedures described above we identified 97,514 new firms. We discarded 635 firms that had no owners working in them and 16,075 with no proper sector classification. From the remaining firms, we selected those in which all owners were immigrants and that remained exclusively owned by immigrants while in the sample. Immigrants created 1,334 firms, of which natives subsequently acquired 137, thus leaving us with 1,197 firms owned by immigrants. Conversely, our comparison sample of native entrepreneurs includes new firms that are exclusively owned by Portuguese individuals throughout their lives. From the total of 79,470 firms created by natives, 299 were

subsequently acquired by immigrants, leaving us with 79,171 firms owned by natives. We used this set of firms to select a sample of firms matching the characteristics of our immigrant-owned firms. The rationale and procedures employed for this matching are explained below.

Immigrant entrepreneurs in our data come from 38 different countries, as shown in Figure 1. Some of these firms may have more than one owner and, for several countries, the number of entrepreneurs is thus higher than the number of firms from that country.

INSERT Figure 1 HERE

Dependent variables and estimation model

The variable that interests us is the time elapsed between the moment a firm is created and the moment it exits. This calls for a model that specifies the duration of this time period as a function of the observable variables. A common model is the proportional hazards model, in which the effect of the covariates is modeled as having a proportional effect on the hazard rate. An important choice for the modeling of the hazard rate is the choice of parametric vs. semi-parametric models. Parametric models have the advantage of relying on well-known continuous distributions (e.g., exponential, Weibull, log-logistic), but poorly chosen distributions may lead to biased results. Semi-parametric models do not make parametric assumptions about the distribution of exit over time and are, therefore, more flexible. A model that is particularly attractive in our context is the complementary log log (cloglog) model. Because firms can start and cease operations any working day of the year, and the length of the survival period can be any number of days. However, in our data we observe firms only once a year, and for a small number of years. The cloglog model is particularly adequate, as it has the desirable property of being specified for continuous duration processes that are observed only at discrete intervals, and modeling the effect of elapsed time can be done quite flexibly (Jenkins, 1995).

To estimate our regressions the data is transformed so that our unit of observation is the firm in each year of activity. Firms that are active in our data for several years are included in the dataset repeatedly, each observation being identified by the age of the firm in that year. Our indicator variable is a dummy that takes the value 1 if the firm exits in that year and 0 otherwise. Therefore, a positive coefficient associated with a given independent variable indicates that the impact of that variable upon exit is positive.

Although we control for a large number of independent variables, it is possible that some unobserved heterogeneity remains in the data, which may bias the estimation. Such unobserved heterogeneity can be accounted for with a frailty model, and we estimate such a model in which heterogeneity is assumed to follow the gamma distribution (Lancaster, 1992).

Independent variables

We define a firm as immigrant-owned if all of its owners are immigrants. Immigrant is thus a dummy variable taking the value 1 for such firms and 0 otherwise. Other definitions would be possible. Results (in the online appendix) using alternative definitions are not very different from the results reported below. Our Immigrant variable is further decomposed into two dummy variables: Immigrant-Close takes the value 1 if the firm was created by immigrants from institutionally close countries (Portuguese speaking or European Union countries), and 0 otherwise. The second (Immigrant-Distant) takes the value 1 if the firm was created by immigrants from other countries and 0 otherwise. The omitted category is firms created by native entrepreneurs (with Portuguese nationality).

Local labor market experience is measured by the years that an individual was in the host country labor market before creating a particular firm. Our proxy is a lower bound to the actual experience in the host country. As our data start in 1985, we were able to trace participation in the labor market from that date on. While we cannot precisely measure lengths of stay that are very long, this is unlikely to be a major problem. We are able to

accurately measure experience up to 17 years (firms created in 2002 by people that were already in the files in 1985) and fewer than 2% of the immigrant entrepreneurs in our sample have local experience greater than 17 years. As the data include information on the date each person started working in the firm, if someone who is in the files in 1985 started working in that firm earlier, we also take the length of such experience into account. Finally, the effect of any imprecision is minimized as we enter our measure of experience in logarithms.

Our measure of community size is the absolute number of people sharing the same nationality that work in firms located in the same county (*concelho*) as the firm.

Control variables

We control for factors related to characteristics of entrepreneurs, firms, industry, location, and economy wide effects that have been found to affect the survival of firms. At the level of the entrepreneur we control for human capital (measured by the average number of years of schooling for all owners in each firm), age (averaged across all owners) and gender (proportion of males among the owners). The survival of firms has been found to be affected by the human capital of the entrepreneurs (Gimeno *et al.*, 1997) and by their age (van Praag, 2003). We include a quadratic term for entrepreneur age to account for retirement age (van Praag, 2003) and for a possible non-monotonic relationship with self-employment earnings (Hamilton, 2000). Firms owned by women have been found to be smaller (Fischer, Reuber, & Dyke, 1993) and to have lower survival rates than their male-owned counterparts (Boden & Nucci, 2000).

We control for the development of the entrepreneur's home country. Individuals from low income countries are likely to have less access to financial resources than those from high income countries, as they probably had fewer opportunities to accumulate wealth. Entrepreneurs typically rely on their personal savings as a primary source of funding, and access to funding has been found to play an important role in determining entrepreneurial

survival (Gimeno *et al.*, 1997). Obtaining external funding can be particularly challenging for immigrants since investors seem to prefer to invest in local rather than in foreign firms (Chan, Covrig, & Ng, 2005), and immigrant entrepreneurs face aggravated LOF in capital markets (Bell, Filatotchev, & Rasheed, 2012). Income in the home country has been found to affect the survival of firms (Tsang & Yip, 2007). We control for GDP per capita (GDPpc) in the home country of the entrepreneurs in the year they start their firm in Portugal. GDP per capita comes from the United Nations World Development Indicators Database, and is measured in constant prices for the year 2000 adjusted for purchasing power parity and averaged across owners.

At the firm level we control for firm size (measured by employment), age (years since foundation) and number of owners. The three variables are entered in logs. Firm size has been found to correlate with firm survival (e.g., Gimeno *et al.* 1997). Our observations concentrate on the infancy of firms and thus, in line with earlier findings (Mitchell, 1994), we expect that exit will decrease with age. Having several owners may indicate that the firm is more able to gather resources and thus to have lower exit rates (Cressy, 1996).

We control for economy wide conditions, industry and location by including 6 year dummies, 102 4-digit industry dummies and 102 county dummies. Industry and location effects control for factors that are specific to the industry and location and that do not change over time while the year effects control for factors that change over time but affect all firms equally. To control for time changing conditions in the industry and location we included a measure of the extent to which entry and exit in the industry-location-year are relevant as compared to overall entry and exit in the same location and year to serve as a proxy for munificence. *Entry* is calculated as the employment in new firms at the industry-location-year, scaled by employment in new firms at the location-year. *Exit* is the employment in

exiting firms at the industry-location-year, scaled by employment in exiting firms at the location-year. *Local Economic Activity* is defined as *Entry – Exit*.

Sample

Our samples of firms created by immigrants and natives are described in columns (1) and (2) of Table 1. While immigrants have considerably less experience in the host country labor market than natives, and the number of members of the immigrant communities in the counties in which firms are started is quite smaller than the corresponding number of natives, the other variables do not exhibit big differences. The average age is quite similar for native and immigrant entrepreneurs and immigrants have a slightly greater number of years of schooling than native entrepreneurs. Immigrants create firms that are slightly larger and their firms have fewer owners.

On average, the income level of the home countries of the immigrant entrepreneurs is close to that of Portugal, but there is wide variation (for the sample of native entrepreneurs, variation in GDP per capita comes only from the time series variation in the GDP of Portugal, while for immigrants it comes from both time variation and cross-country variation). With the exception of China, the twelve top nationalities in Figure 1 are either European Union or Portuguese speaking countries. Income per capita in the other European countries is considerably higher than in Portugal, while both China and Portuguese speaking countries have substantially lower GDPs.

INSERT Table 1 ABOUT HERE

With the exception of experience and community size, the differences in firms in the two samples are not large (although education and number of owners are significantly different in statistical terms). To allow for a stricter comparison between natives and immigrants, we selected a sample of native entrepreneurs that closely matches our sample of

immigrants, in their demographics and experience in the labor market, as well as in their sectoral composition and geographic location.

This matching procedure helps in dealing with two issues. First, individuals choose to become entrepreneurs for a variety of reasons. By focusing on individuals with similar traits in the samples of native and immigrant entrepreneurs, we aim to select individuals with similar reasons for becoming entrepreneurs. Second, natives and immigrants may have differing tendencies to enter various industries and/or locations. By matching on these dimensions as well, each immigrant firm in our sample has a similar native owned firm, which reduces industry and location effects. Therefore, by matching across multiple traits, we can concentrate on the differences that emerge between similar firms that differ only in their immigrant vs native ownership.

We match firms created by natives and firms created by immigrants in the year the firms were created using the Coarsened Exact Matching (CEM) proposed by Blackwell *et al.* (2009). We coarsened variables at the entrepreneur, firm, industry and location level, using the default settings of the CEM command in Stata, except for employment where bins were defined using thresholds of 5, 10, and 15 employees. For entrepreneurs, we used age, years of education, and years in the labor market. For firms, we used the number of entrepreneurs, the proportion of men, and their employment. We also included the industries and locations in which the firms operated, and the previously defined measure of *Local Economic Activity*, which varies for industry location and year. CEM does a better job in reducing imbalances in the covariates between treated and control groups and is less dependent on model specification than other matching methods such as the propensity score matching method, thus leading to better estimates of causal effects (Iacus, King, & Porro, 2012).

We were able to match 1461 similar firms (described in columns 3 and 4 of Table 1), which are then followed throughout time as long as they remain active. In our sample we

have 2560 observations. Each firm corresponds to a variable number of observations for two reasons. First, we have several cohorts and earlier cohorts are observed for a greater number of years. Second, within a given cohort, a firm that survives longer will be observed more. We repeated the analysis using a propensity score matching model to match immigrant and native firms, and the results (in the online appendix) are similar to those shown here.

Table 2 reports descriptive statistics and sample correlations between the independent variables in the matched sample. Most correlation coefficients are low for control variables. For correlation tables, standard practice has been to conduct VIF tests to assess concerns about multicollinearity. But recently Kalnins (2018) shows that the VIF test can be of little value. Instead we use incremental model specifications, introducing each focal variable one at a time and watch for sign flips on other focal variables and control variable coefficient estimates.

INSERT Table 2 ABOUT HERE

Results

Differences between firms created by natives and immigrants

The results of our first regressions are reported in Table 3. Column (1) shows the results of estimating our cloglog model including only control variables, which are broadly in line with our expectations. Results indicate that exit decreases and then increases with the age of owners, the minimum of exit being around the age of 43. We find a positive effect of education, which can be due to the fact that education increases the ability to run new ventures, but also the opportunity costs for business owners (Gimeno *et al.*, 1997). Gender, measured by the proportion of males among the owners, has a negative coefficient (although non significant p=0.35), while the GDP of the entrepreneur's home country exerts a negative effect. As for firm characteristics, larger and older firms are less likely to exit. The number of owners also has a negative, but non significant (p=0.80), coefficient. After controlling for

industry and location effects, the coefficient of economic activity in the location-industry-year is negative but non-significant (p=0.82). The estimated effects of control variables are largely unaffected by the inclusion of our variables of interest (columns 2-5).

INSERT Table 3 ABOUT HERE

Column (2) also includes the immigrant dummy plus the variables that measure work experience and the size of the national community of the entrepreneur. The immigrant dummy in column (2) is positive (p=0.01) indicating that, everything else being constant, firms owned by immigrants have a 29% increase in the likelihood of exit relative to those owned by natives. This result supports Hypothesis 1.

Column (3) includes the interaction of the immigrant dummy with work experience, while in column (4) this interaction is replaced by the interaction of the immigrant dummy and the size of the community. Work experience has a positive coefficient for natives (p=0.07), but it is negative (p=0.09) for immigrants, thus indicating that the longer immigrants stay in the country the more likely it is that their firms will survive. Firms created by immigrants with one and three years of work experience are 3% and 5% less likely to exit than firms created by immigrants with no local work experience, while for firms created by natives the chances of exit even increase. This result supports Hypothesis 2. In the specification of column (4) we find no relevant effect of the size of the national community (p=0.91), and therefore no support for Hypothesis 3.

These results remain unchanged when both interactions are included at the same time (column 5) and when unobserved heterogeneity is accounted for with a frailty model (column 6). Accounting for unobserved heterogeneity does not improve the fit of the model at all (p=0.49), which indicates that our pooled cloglog estimates are not subject to significant bias. The final column includes an interaction between Age and Immigrant. The results (p=0.83) indicate that the effect of Age is not different between native and immigrant firms.

Differences between firms created by immigrants from similar and distant countries

In Table 4 the Immigrant dummy is replaced by two dummies (Immigrant-Close and Immigrant-Distant), for immigrants that come from institutionally close and distant countries. The structure of the table is the same as in Table 3 (the column with only control variables would be identical to that in Table 3 and is not repeated). The results for the control variables are broadly the same as in Table 3 and, as before, remain similar throughout the different columns. In column (1), the results for the Immigrant-Close and Immigrant-Distant dummies show a positive (p=0.01) effect for Immigrant-Close, but not for Immigrant-Distant (p=0.88). Hypothesis 4 is therefore not supported.

Instead, the effect of Immigrant-Distant emerges in the interactions with work experience and size of the community as shown in columns (2) to (8). Work experience has a negative effect for both groups, but the estimated coefficients for Immigrant-Close are always small with p values that are always above 0.28. The coefficients for Immigrant-Distant are much larger and clearly significant (p-values are between 0.02 and 0.04 depending on the specification). Firms created by immigrants from institutionally distant countries with one and three years of work experience are 16% and 27% less likely to exit than firms created by immigrants with no local work experience, while for those owned by immigrants from similar countries the corresponding decreases are 2% and 3%. This supports Hypothesis 5. A similar pattern is observed for the size of the community. While for Immigrant-Close the coefficient is even positive (with p-values of 0.02 or below), the effect for the Immigrant-Distant group is clearly negative (p-values below 0.00), which supports Hypothesis 6.

INSERT Table 4 ABOUT HERE

In our full model (column 8), the coefficients of Immigrant-Distant and Immigrant-Close are both positive, indicating that both types of immigrant firms exit more than similar native firms. While the coefficients of Immigrant-Close are systematically statistically

significant throughout the table, those of Immigrant-Distant are not, and the two coefficients are not statistically different. In fact, the differences between the Close and Distant groups relate to how the effect of experience and the size of the community affect survival more than a simple higher probability of exit for those from institutionally distant countries.

Finally, we tested for differences in the impact of firm age on survival in our regressions to see if the experience of running a firm in the host country also contributes to a reduction in the LOF. Results indicate that the effect of firm age on survival of firms owned by immigrants and those owned by natives is not statistically different (column 9, Table 4).

Discussion and conclusion

We find that firms created by immigrants are more likely to exit than those created by natives of Portugal and benefit from increases in the length of local work experience, while firms created by natives do not. Two groups of immigrants are institutionally closer to Portuguese than the remaining ones: citizens from the EU and from Portuguese speaking countries. We find that those with greater institutional distance from Portugal benefit more from local work experience and from starting firms in locations in which their national community is large than those with smaller institutional distance. The finding that the effect of the size of national communities is chiefly important for those communities that have greater dissimilarities to the local society fits the idea well that agglomerations are, in general, mostly important for those innovative activities which are more radically different than the remaining economic activities (Audretsch, 1998).

We also find indications of a liability of newness (Freeman, Carroll, & Hannan, 1983), as survival decreases with the age of firms. However, we do not find differences in the effect of the age of firms on survival between firms created by immigrants and those created by natives, which does not corroborate the view that the experience of running a firm in the host country contributes to a reduction in the LOF reported by Zaheer and Mosakowski

(1997) and Mata and Portugal (2002). These authors did not study entrepreneurial firms, nor did they account for the host country experience of those managing such firms. While our results indicate that a LOF exists, they suggest that this liability decreases more with the extent of the work experience of the entrepreneur in the host country than with the age of the firm. This indicates that the knowledge accumulated by individuals is key to reducing the LOF, which corroborates the findings of Mezias (2002).

Our results put the individual in the center of the LOF and have important theoretical implications for research in strategic management. The implications go beyond the study of the entrepreneurial initiatives of immigrants and call for more studies that focus on the international experience of individual decision makers. Sapienza *et al.* (2006) posited that the international experience of managers could be a substitute for the lack of international experience of firms that wish to go into international markets. Some studies have attempted to control for the diversity of managers' international experience (Carpenter, Sanders, & Gregersen, 2001) and the diversity of nationalities among management team members (Nielsen & Nielsen, 2011). The learning from international experience may, however, be different depending on the country where it was obtained, and benefits of this learning may also depend on the country it is applied to. An implication of our study for the literature in international entrepreneurship that has looked to the international experience of founders of firms (De Clercq *et al.*, 2012; Oviatt & McDougall, 1994) is that it would be valuable to extend this research to take into account the institutional specificities of the countries where experience is gained and where this experience is applied. Upper echelon theory emphasizes that individual manager demographics significantly influence firm strategy and performance (Hambrick & Mason, 1984), and recent work suggests that international diversity of managers is a dimension that should be considered by this theory (Nielsen & Nielsen, 2013). Our results indicate that the institutional proximity between the home countries of individuals

and the countries in which they have business activities matters for the performance of firms, and suggests that future work in upper echelon theory that seeks to take the international dimension into account should explicitly consider this proximity.

Our results also contribute to a discussion on the nature of the learning process that takes place when firms operate abroad. Our findings are consistent with the patterns reported in a review of the literature on international new ventures indicating that an important part of learning is congenital, that is, it occurs before the firm is created (De Clercq *et al.*, 2012). We also find evidence of experiential learning, which takes place after the firm is created, but such learning is not different from that which occurs in firms created by native entrepreneurs. Furthermore, we find that learning from others (vicarious learning) still takes place in the post-entry stage, while De Clercq and colleagues report it to be most relevant during the pre-internationalization stage. The fact that we analyze firms created by immigrants while the review by De Clercq *et al.* (2012) focuses on firms that are created in one country and taken abroad shortly after creation may explain the different findings.

Our results also have implications for practice. For management in general, the main implication is that, when a firm is considering entering a new country, there may be important payoffs in choosing a management team with considerable knowledge of that country rather than relying mostly on the post-entry learning process. Our research indicates that knowledge about a foreign country is not only a matter of the length of time spent in that country, but also of the intrinsic ability to absorb information which is related to institutional similarities between host and home countries. Our results also have implications for individuals who consider entering entrepreneurship in foreign countries, who should carefully evaluate whether they have adequate knowledge of the host economy and if they will be considered by others as a legitimate business party. Foreign firms can improve their performance by actively seeking to learn about their host country (Petersen and Pedersen

2002), and immigrants considering going into entrepreneurship should consider this active learning strategy as well. Furthermore, if one starts from a position of greater institutional distance, time spent working for others may be critical to improving one's chances of success.

Finally, our results will also speak to policy-makers. Many countries pursue active policies designed to help entrepreneurs start their firms, and some of them have implemented specific policies seeking to attract immigrants who wish to start a business in the country. Our results indicate that starting a firm without previous work experience in the host country is particularly risky, and countries that focus on attracting entrepreneurs from abroad should pay particular attention to their integration and provide specific support to learning about the host country. While general training programs can be useful to learn about the host country (Collins, 2003), one-to-one mentoring can be chiefly important for immigrant entrepreneurs, as it has been found to lead to the development of entrepreneurs in general, leading to better management skills, improved vision and opportunity identification capabilities (St-Jean & Audet, 2012). Being important to all entrepreneurs, one-to-one support is likely to be mainly effective for those suffering the most from LOF. Support is also helpful in dealing with host country institutions. Compliance costs, which are a problem for all new and small businesses, are aggravated in the case of immigrants. Institutions that help immigrant entrepreneurs in that area are likely to be particularly helpful (Collins, 2003). Finally, the results that strong national communities are important for survival might suggest policies that encourage the co-location of ethnic communities, in particular, for those that are more dissimilar. However, such policies might in fact be counterproductive as concentration may induce negative sentiments relative to immigrants (Hooghe & de Vroome, 2015) and perpetuate hostility. Associations of immigrants may be alternatives for developing community support (Moya,

2005), and policies that support the development of such associations may be helpful in supporting entrepreneurship among immigrants.

As our study was performed with data on Portugal, it is impossible to know whether results generalize to other countries. While this calls for replication studies for other countries, a few ex-ante comments can be made. Portugal is not the typical country used for most immigration studies, being among the least developed of the developed countries. As other less developed countries in Europe, Portugal is among those that have the lowest immigration rates. As with most other European countries, a large proportion of immigration in Portugal comes from other European countries, which have higher income per capita. Unsurprisingly, a disproportionate share of firm founders come from these countries.

All research projects have limitations and ours is not an exception. Relying on secondary data, as we do, has advantages but also limitations. The process by which immigrants decide to create new firms does not start when they create such firms. First, the decision to migrate is not random (Chiswick, 1999), and immigrants may be different from natives, for example, in their propensity to take risks (Brockhaus, 1980). Immigrants may also differ in the investments they make in learning about the host country before relocating. Preparation of expatriate assignments has proven to be effective for the success of such assignments (Littrell *et al.*, 2006). We know little about the extent to which immigrants prepare for their move abroad, and we were not able to take into account such investments in our analysis. The difference in the ability of immigrant entrepreneurs to speak the host country language was only partially accounted for. We account for differences in immigrants coming from Portuguese versus non-Portuguese speaking countries, but we are not able to account for other differences in the mastery of the host country language, which have been shown to impact income performance in the host country labor market (Bellante and Kogut, 1998). In addition, we do not know the extent to which immigrants in our sample maintain

relations with their country of origin. The literature on transnational entrepreneurs stresses the importance that simultaneous embeddedness in two environments may have for the success of the businesses created by immigrants (Drori, Honig, & Wright, 2009). Obtaining information on all of these issues is likely to be possible only with smaller scale primary data, possibly through detailed interviews, and this remains a priority for future work.

Acknowledgements: We are grateful to John Antonakis, Cátia Batista, Joerg Dietz, Violetta Gerasymenko, Franciska Krings, Francisco Lima, Catarina Reis Oliveira, João Peixoto, Tiago Pires, Noni Symeonidou and audiences at Aalborg, Durham, Lausanne, Lisbon, Paris, Vienna, Montpellier and New York for useful comments and suggestions. We are grateful to the Ministry of Employment for providing the data used and to Nova Fórum for financial support. The authors are responsible for all results and interpretations and these do not reflect the views of the Ministry of Employment or the persons being thanked.

References

Ardichvili, A., Cardozo, R., & Ray, S. 2003. A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing* **18**(1): 105–123.

Audretsch, B. 1998. Agglomeration and the location of innovative activity. *Oxford Review of Economic Policy* **14**(2): 18–29.

Barkema, HG., Bell, JHJ., & Pennings, JM. 1996. Foreign entry, cultural barriers, and learning. *Strategic Management Journal* **17**(2): 151–166.

Barringer, BR., Jones, FF., & Neubaum, DO. 2005. A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing* **20**(5): 663–687.

Bell, RG., Filatotchev, I., & Rasheed, AA. 2012. The liability of foreignness in capital markets: Sources and remedies. *Journal of International Business Studies* **43**(2): 107–122.

Bellante, D., & Kogut, C. 1998. Language ability, U.S. labor market experience and the earnings of immigrants. *International Journal of Manpower* **19**: 319–330.

Berry, J. 1976. *Human ecology and cognitive style: comparative studies in cultural and psychological adaptation*. John Wiley & Sons Inc.

Berry, JW. 1997. Immigration, acculturation, and adaptation. *Applied Psychology* **46**(1): 5–34.

Berry, JW., Kim, U., Power, S., Young, M., & Bujaki, M. 1989. Acculturation attitudes in plural societies. *Applied Psychology* **38**(2): 185–206.

Birley, S. 1985. The role of networks in the entrepreneurial process. *Journal of Business Venturing* **1**(1): 107–117.

Blackwell, M., Iacus, S., King, G., & Porro, G. 2009. cem: Coarsened exact matching in Stata. *Stata Journal* **9**(4): 524–546.

Boden, RJ., & Nucci, AR. 2000. On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing* **15**(4): 347–362.

Brauer, M. 2001. Intergroup perception in the social context: The effects of social status and group membership on perceived out-group homogeneity and ethnocentrism. *Journal of Experimental Social Psychology* **37**(1): 15–31.

Brockhaus, RH. 1980. Risk taking propensity of entrepreneurs. *The Academy of Management Journal* **23**(3): 509–520.
Brüderl, J., & Preisendörfer, P. 1998. Network support and the success of newly founded business. *Small Business Economics* **10**(3): 213–225.
Carpenter, MA., Sanders, G., & Gregersen, HB. 2001. Bundling human capital with organizational context: The impact of international assignment experience on multinational firm performance and CEO pay. *The Academy of Management Journal* **44**(3): 493–511.
Chan, CM., Isobe, T., & Makino, S. 2008. Which country matters? Institutional development and foreign affiliate performance. *Strategic Management Journal* **29**(11): 1179–1205.
Chan, K., Covrig, V., & Ng, L. 2005. What determines the domestic bias and foreign bias? Evidence from mutual fund equity allocations worldwide. *The Journal of Finance* **60**(3): 1495–1534.
Chiswick, B. 1978. The effect of Americanization on the earnings of foreign-born men. *The Journal of Political Economy* **86**(5): 897–921.
Chiswick, BR. 1999. Are immigrants favorably self-selected? *The American Economic Review* **89**(2): 181–185.
De Clercq, D., Sapienza, H., Yavuz, R., & Zhou, L. 2012. Learning and knowledge in early internationalization research: Past accomplishments and future directions. *Journal of Business Venturing* **27**(1): 143–165.
Collins, J. 2003. Cultural diversity and entrepreneurship: Policy responses to immigrant entrepreneurs in Australia. *Entrepreneurship & Regional Development* **15**(2): 137–149.
Cressy, R. 1996. Are business startups debt-rationed? *The Economic Journal* **106**(438): 1253–1270.
Crossland, C., & Hambrick, D. 2007. How national systems differ in their constraints on corporate executives: A study of CEO effects in three countries. *Strategic Management Journal* **28**(8): 767–789.
Crossland, C., & Hambrick, D. 2011. Differences in managerial discretion across countries: How nation-level institutions affect the degree to which CEOs matter. *Strategic Management Journal* **32**(8): 797–819.
Cuervo-Cazurra, A. 2006. Who cares about corruption? *Journal of International Business Studies* **37**(6): 807–822.
Dahl, MS., & Sorenson, O. 2012. Home sweet home: Entrepreneurs' location choices and the performance of their ventures. *Management Science* **58**(6): 1059–1071.
Delios, A., & Beamish, PW. 2001. Survival and profitability: The roles of experience and intangible assets in foreign subsidiary performance. *The Academy of Management Journal* **44**(5): 1028–1038.
Delios, A., & Henisz, W. 2003. Policy uncertainty and the sequence of entry by Japanese firms, 1980-1998. *Journal of International Business Studies* **34**(3): 227–241.
Drori, I., Honig, B., & Wright, M. 2009. Transnational entrepreneurship: An emergent field of study. *Entrepreneurship Theory and Practice* **33**(5): 1001–1022.
Dustmann, C., & Van Soest, A. 2002. Language and the earnings of immigrants. *Industrial & Labor Relations Review* **55**(3): 473–492.
Earley, PC. 2002. Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. *Research in Organizational Behavior* **24**: 271–299.
Eden, L., & Miller, SR. 2004. Distance matters: Liability of foreignness, institutional distance and ownership strategy. In *Theories of the Multinational Enterprise: Diversity, Complexity and Relevance*, Hitt MA, Cheng JL (eds). Emerald Group Publishing Limited, Bingley and Bradford, 16: 187–221.
Ellis, PD. 2011. Social ties and international entrepreneurship: Opportunities and constraints

affecting firm internationalization. *Journal of International Business Studies* **42**(1): 99–127.
Erramilli, MK. 1991. The experience factor in foreign market entry behavior of service firms. *Journal of International Business Studies* **22**(3): 479–501.
Evans, M. 1989. Immigrant entrepreneurship: Effects of ethnic market size and isolated labor pool. *American Sociological Review* **54**(6): 950–962.
Fajgelbaum, P., Grossman, G., & Helpman, E. 2014. A Linder hypothesis for foreign direct investment. *The Review of Economic Studies* **82**(1): 83–121.
Fang, T., Samnani, A-K., Novicevic, M., & Bing, M. 2013. Liability-of-foreignness effects on job success of immigrant job seekers. *Journal of World Business* **48**: 98−109.
Fischer, EM., Reuber, AR., & Dyke, LS. 1993. A theoretical overview and extension of research on sex, gender, and entrepreneurship. *Journal of Business Venturing* **8**(2): 151–168.
Freeman, J., Carroll, GR., & Hannan, MT. 1983. The liability of newness: Age dependence in organizational death rates. *American Sociological Review* **48**(5): 692–710.
Friedberg, RM. 2000. You can't take it with you? Immigrant assimilation and the portability of human capital. *Journal of Labor Economics* **18**(2): 221–251.
Gimeno, J., Folta, TB., Cooper, AC., & Woo, CY. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly* **42**(4): 750–783.
Gunkel, M., Schlägel, C., & Engle, RL. 2014. Culture's influence on emotional intelligence: An empirical study of nine countries. *Journal of International Management* **20**(2): 256–274.
Hambrick, DC., & Mason, PA. 1984. Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review* **9**(2): 193–206.
Hamilton, B. 2000. Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy* **108**(3): 604–631.
Harvey, M., Novicevic, M., Buckley, MR., & Fung, H. 2005. Reducing inpatriate managers' liability of foreignness by addressing stigmatization and stereotype threats. *Journal of World Business* **40**(3): 267–280.
Hooghe, M., & de Vroome, T. 2015. The perception of ethnic diversity and anti-immigrant sentiments: A multilevel analysis of local communities in belgium. *Ethnic and Racial Studies* **38**(1): 38–56.
Iacus, S., King, G., & Porro, G. 2012. Causal inference without balance checking: Coarsened exact matching. *Political Analysis* **20**(01): 1–24.
Iredale, R. 2001. The migration of professionals: Theories and typologies. *International Migration* **39**(5): 7–26.
Jenkins, SP. 1995. Easy estimation methods for discrete-time duration models. *Oxford Bulletin of Economics and Statistics* **57**(1): 129–136.
Johanson, J., & Vahlne, J-E. 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies* **40**: 1411–1431.
Johnson, JP., Lenartowicz, T., & Apud, S. 2006. Cross-cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies* **37**(4): 525–543.
Kalnins, A. 2018. Multicollinearity: How common factors cause Type 1 errors in multivariate regression. *Strategic Management Journal* (forthcoming).
Kalnins, A., & Chung, W. 2006. Social capital, geography, and survival: Gujarati immigrant entrepreneurs in the U.S. lodging industry. *Management Science* **52**(2): 233–247.
Klepper, S., & Sleeper, S. 2005. Entry by spinoffs. *Management Science* **51**(8): 1291–1306.

Lancaster, T. 1992. *The econometric analysis of transition data*. Cambridge University Press.
Littrell, LN., Salas, E., Hess, KP., Paley, M., & Riedel, S. 2006. Expatriate preparation: A critical analysis of 25 years of cross-cultural training research. *Human Resource Development Review* **5**(3): 355–388.
Longhi, S., & Markaki, Y. 2013. *What determines attitudes to immigration in european countries? An analysis at the regional level*. *Migration Studies*, 1.
Luo, Y. 1997. Partner selection and venturing success: The case of joint ventures with firms in the people's republic of china. *Organization Science* **8**(6): 648–662.
Makino, S., Isobe, T., & Chan, CM. 2004. Does country matter? *Strategic Management Journal* **25**(10): 1027–1043.
Masgoret, A., & Ward, C. 2016. Culture learning approach to acculturation. In *The Cambridge handbook of acculturation psychology*, Sam D, Berry J (eds). Cambridge University Press, Cambridge: 58–77.
Mata, J., & Portugal, P. 2002. The survival of new domestic and foreign-owned firms. *Strategic Management Journal* **23**(4): 323–343.
Maxwell, R. 2010. Evaluating migrant integration: Political attitudes across generations in europe. *International Migration Review* **44**(1): 25–52.
Mayda, A. 2006. Who is against immigration? A cross-country investigation of individual attitudes toward immigrants. *The Review of Economics and Statistics* **88**(3): 510–530.
Melitz, J. 2008. Language and foreign trade. *European Economic Review* **52**(4): 667–699.
Mezias, J. 2002. Identifying liabilities of foreignness and strategies to minimize their effects: The case of labor lawsuit judgments in the United States. *Strategic Management Journal* **23**(3): 229–244.
Mezias, J., & Mezias, S. 2007. Man without a country: Is there a liability of foreignness in individual outcomes. *Working paper No. WPS-MGT-07-15*.
Miller, SR., & Parkhe, A. 2002. Is there a liability of foreignness in global banking? An empirical test of banks' X-efficiency. *Strategic Management Journal* **23**(1): 55–75.
Miller, SR., Thomas, DE., Eden, L., & Hitt, M. 2008. Knee deep in the big muddy: The survival of emerging market firms in developed markets. *Management International Review* **48**(6): 645–666.
Mitchell, W. 1994. The dynamics of evolving markets: The effects of business sales and age on dissolutions and divestitures. *Administrative Science Quarterly* **39**(4): 575–602.
Moghaddam, FM., Taylor, DM., & Lalonde, RN. 1987. Individualistic and collective integration strategies among Iranians in Canada. *International Journal of Psychology* **22**(3): 301–313.
Moya, JC. 2005. Immigrants and associations: A global and historical perspective. *Journal of Ethnic and Migration Studies* **31**(5): 833–864.
Nachum, L. 2009. When is foreignness an asset or a liability? Explaining the performance differential between foreign and local firms. *Journal of Management* **36**(3): 714–739.
Nadkarni, S., & Herrmann, P. 2010. Ceo personality, strategic flexibility, and firm performance: The case of the indian business process outsourcing industry. *Academy of Management Journal* **53**(5): 1050–1073.
Nardinelli, C., & Simon, C. 1990. Customer racial discrimination in the market for memorabilia: The case of baseball. *The Quarterly Journal of Economics* **105**(3): 575–595.
Nee, V., Sanders, J., & Sernau, S. 1994. Job transitions in an immigrant metropolis: Ethnic boundaries and the mixed economy. *American Sociological Review* **59**(6): 849–872.
Nielsen, BB., & Nielsen, S. 2011. The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode. *Journal of World Business* **46**(2): 185–193.

Nielsen, BB., & Nielsen, S. 2013. Top management team nationality diversity and firm performance: A multilevel study. *Strategic Management Journal* **34**(3): 373–382.
North, D. 1991. Institutions. *Journal of Economic Perspectives* **5**(1): 97–112.
O'Grady, S., & Lane, HW. 1996. The psychic distance paradox. *Journal of International Business Studies* **27**(2): 309–333.
Oliveira, C. 2008. The determinants of immigrant entrepreneurial strategies in Portugal. In *Migrações 3*: 101–128.
Oviatt, BM., & McDougall, PP. 1994. Toward a theory of international new ventures. *Journal of International Business Studies* **25**(1): 45–64.
Pedersen, P., Pytlikova, M., & Smith, N. 2008. Selection and network effects-Migration flows into OECD countries 1990-2000. *European Economic Review* **52**(7): 1160–1186.
Petersen, B., & Pedersen, T. 2002. Coping with liability of foreignness: Different learning engagements of entrant firms. *Journal of International Management* **8**(3): 339–350.
Piperopoulos, P. 2010. Ethnic minority businesses and immigrant entrepreneurship in greece. *Journal of Small Business and Enterprise Development* **17**(1): 139–158.
Portes, A., & Rumbaut, R. 2006. *Immigrant america: A portrait*. University of California Press, Berkeley and Los Angeles.
Portes, A., & Sensenbrenner, J. 1993. Embeddedness and imigration: Notes on the social determinants of economic action. *American Journal of Sociology* **98**(6): 1320–1350.
Portes, A., & Zhou, M. 1993. The new second generation: Segmented assimilation and its variants. *The Annals of the American Academy of Political and Social Science* **530**(1): 74–96.
van Praag, CM. 2003. Business survival and success of young small business owners. *Small Business Economics* **21**(1): 1–17.
Raijman, R., & Tienda, M. 2000. Immigrants' pathways to business ownership: A comparative ethnic perspective. *The International Migration Review* **34**(3): 682–706.
Reuber, AR., & Fischer, E. 1997. The influence of the management team's international experience on the internationalization behaviors of smes. *Journal of International Business Studies* **28**(4): 807–825.
Rodriguez, P., Uhlenbruck, K., & Eden, L. 2005. Government corruption and the entry strategies of multinationals. *The Academy of Management Review* **30**(2): 383–396.
Salomon, R., & Wu, Z. 2012. Institutional distance and local isomorphism strategy. *Journal of International Business Studies* **43**(4): 343–367.
Sapienza, HJ., Autio, E., George, G., & Zahra, SA. 2006. A capabilities perspective on the effects of early internationalization on firm survival and growth. *The Academy of Management Review* **31**(4): 914–933.
Schlueter, E., & Scheepers, P. 2010. The relationship between outgroup size and anti-outgroup attitudes: A theoretical synthesis and empirical test of group threat- and intergroup contact theory. *Social Science Research* **39**(2): 285–295.
Schneider, SL. 2008. Anti-immigrant attitudes in Europe: Outgroup size and perceived ethnic threat. *European Sociological Review* **24**(1): 53–67.
Shane, S. 2000. Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science* **11**: 448–469.
Shrader, RC., Oviatt, BM., & McDougall, PP. 2000. How new ventures exploit trade-offs among international risk factors: Lessons for the accelerated internationalization of the 21st century. *Academy of Management Journal* **43**(6): 1227–1247.
Simonin, BL. 1999. Ambiguity and the process of knowledge transfer in strategic alliances. *Strategic Management Journal* **20**(7): 595–623.
St-Jean, E., & Audet, J. 2012. The role of mentoring in the learning development of the novice entrepreneur. *International Entrepreneurship and Management Journal* **8**(1):

119–140.
Stahl, GK., Tung, RL., Kostova, T., & Zellmer-Bruhn, M. 2016. Widening the lens: Rethinking distance, diversity, and foreignness in international business research through positive organizational scholarship. *Journal of International Business Studies* **47**(6): 621–630.
Stinchcombe, A. 1965. Social structure and organizations. In *Handbook of Organizations*, March J (ed). RandMcNally: Chicago,IL: 142–193.
Suchman, MC. 1995. Managing legitimacy: Strategic and institutional approaches. *The Academy of Management Review* **20**(3): 571–610.
Tsang, E., & Yip, P. 2007. Economic distance and the survival of foreign direct investments. *The Academy of Management Journal* **50**(5): 1156–1168.
Vermeulen, F., & Brünger, M. 2014. The organisational legitimacy of immigrant groups: Turks and Moroccans in amsterdam. *Journal of Ethnic and Migration Studies* **40**(7): 979–1001.
Waldrauch, H., & Hofinger, C. 1997. An index to measure the legal obstacles to the integration of migrants. *Journal of Ethnic and Migration Studies* **23**(2): 271–285.
Ward, C., & Kennedy, A. 1993. Where's the 'culture' in cross-cultural transition?: Comparative studies of sojourner adjustment. *Journal of Cross-Cultural Psychology* **24**(2): 221–249.
Ward, C., & Searle, W. 1991. The impact of value discrepancies and cultural identity on psychological and sociocultural adjustment of sojourners. *International Journal of Intercultural Relations* **15**(2): 209–224.
Waters, MC., & Jimenez, TR. 2005. Assessing immigrant assimilation: New empirical and theoretical challenges. *Annual Review of Sociology* **31**: 105–125.
Zaheer, S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal* **38**(2): 341–363.
Zaheer, S., & Mosakowski, E. 1997. The dynamics of the liability of foreignness: A global study of survival in financial services. *Strategic Management Journal* **18**(6): 439–463.
Zahra, SA. 2005. A theory of international new ventures: A decade of research. *Journal of International Business Studies* **36**(1): 20–28.
Zhou, L., Wu, W., & Luo, X. 2007. Internationalization and the performance of born-global SMEs: The mediating role of social networks. *Journal of International Business Studies* **38**(4): 673–690.
Zimmerman, MA., & Zeitz, GJ. 2002. Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review* **27**(3): 414–431.

Figures and Tables

Figure 1. Entrepreneurs and Firms by Country of Origin

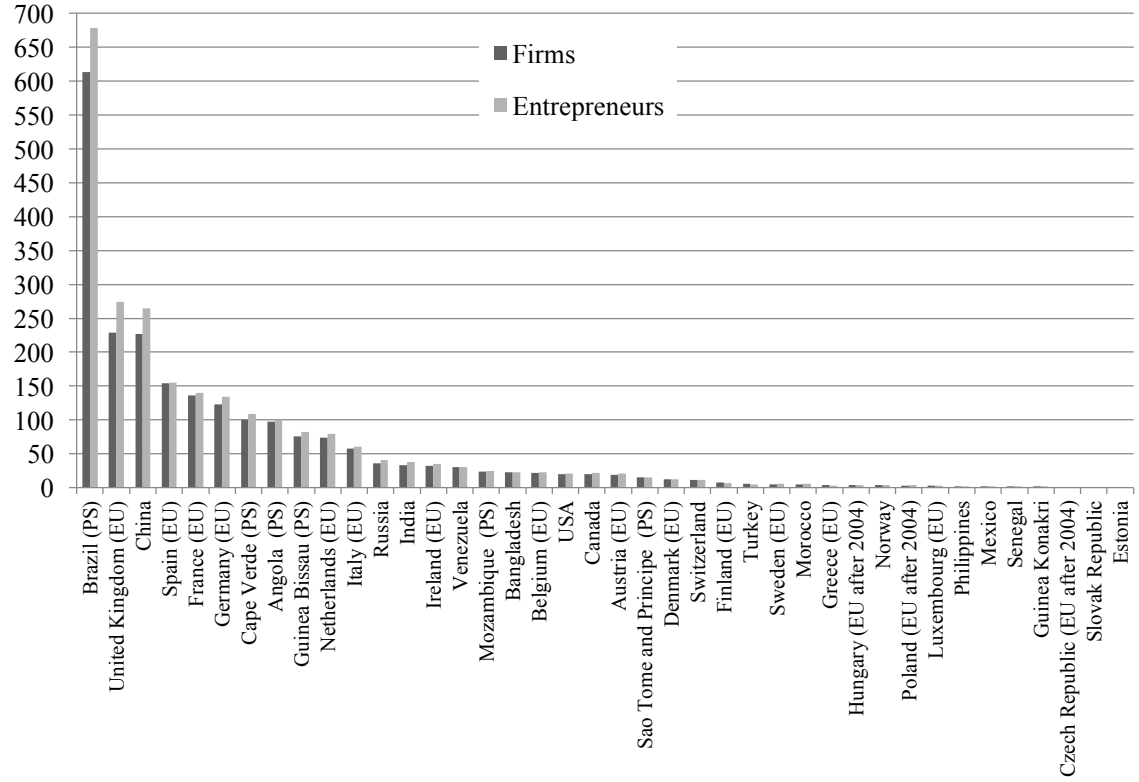

Table 1. Sample Averages at Time of Creation

	(1)	(2)		(3)	(4)	
	Full Sample			Matched Sample		
	Immigrant	Native Firms	t Stat.	Immigrant	Native Firms	t Stat.
Experience	2.997	10.229	53.898	2.742	2.858	0.579
	(4.534)	(8.092)		(3.961)	(3.701)	
Community Size	1168.472	57864.948	105.42	1585.436	78360.237	14.112
	(11758.263	(117267.260)		(14885.025)	(145741.503)	
Home C. GDPpc	10534.498	11543.896	3.202	9183.804	11545.936	6.143
	(10904.902	(70.534)		(10431.578)	(68.840)	
Owners' Schooling	9.961	9.025	-7.632	9.991	10.028	0.172
	(4.215)	(4.079)		(4.136)	(4.130)	
Owners' Age	39.198	39.611	1.536	37.673	37.514	-0.359
	(9.220)	(10.017)		(8.426)	(8.489)	
Share of Male	0.723	0.702	-1.714	0.732	0.731	-0.057
	(0.432)	(0.423)		(0.433)	(0.433)	
Employment	3.896	3.611	-1.196	2.518	2.371	-1.238
	(8.185)	(7.340)		(2.524)	(1.974)	
Number of Owners	1.163	1.361	15.305	1.122	1.143	1.191
	(0.440)	(0.665)		(0.328)	(0.351)	
Economic Activity	-0.002	-0.002	-0.100	0.003	0.004	0.314
	(0.051)	(0.049)		(0.029)	(0.030)	
Number of Firms	1197	79171		736	725	

Notes: t statistics are for the equality of the averages of each variable in immigrant and local firms. In this table Home C. GDPpc stands for Home Country GDPpc.

Table 2. Sample Correlations at Time of Creation

Matched Sample	Min	Average	Max	Median	Std.Dev.	1	2	3	4	5	6	7	8	9	10	11	12
1 Immigrant	0.000	0.504	1.000	1.000	0.500	1.000											
2 Immigrant-Distant	0.000	0.135	1.000	0.000	0.342	0.392	1.000										
3 Immigrant-Close	0.000	0.369	1.000	0.000	0.483	0.759	-0.302	1.000									
4 ln(Experience)	-0.693	0.583	3.199	0.405	1.129	-0.033	0.097	-0.103	1.000								
5 Community Size /10^6	0.000	0.040	0.512	0.002	0.110	-0.349	-0.138	-0.264	0.064	1.000							
6 ln(Home C. GDPpc)	5.015	8.819	10.859	9.354	1.134	-0.004	-0.218	0.149	-0.066	0.131	1.000						
7 Owners' Schooling Years /10	0.000	1.001	1.600	0.900	0.413	0.009	-0.081	0.067	0.045	0.037	0.009	1.000					
8 Owners' Age /10	1.900	3.759	6.500	3.650	0.846	0.002	0.029	-0.019	0.030	-0.012	-0.200	0.121	1.000				
9 Share of Male Owners	0.000	0.732	1.000	1.000	0.433	0.036	0.117	-0.045	0.075	0.007	-0.184	-0.064	0.053	1.000			
10 ln(Employment)	0.000	0.680	3.761	0.693	0.609	-0.031	0.040	-0.061	0.116	0.006	-0.104	-0.025	0.000	0.259	1.000		
11 ln(Number of Owners)	0.000	0.092	0.693	0.000	0.235	-0.468	-0.542	-0.102	-0.081	0.158	0.257	0.117	-0.018	-0.203	-0.025	1.000	
12 Economic Activity	-0.219	0.003	0.206	0.001	0.029	-0.008	-0.033	0.015	-0.008	0.004	-0.029	-0.034	0.033	0.037	0.057	-0.053	1.000

Note: In this table Home C. GDPpc stands for Home Country GDPpc.

Table 3. Regression Results: Exit by Native and Immigrant Firms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Immigrant		0.33	0.47	0.33	0.47	0.47	0.49
		(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)
ln(Experience)		0.03	0.12	0.03	0.12	0.12	0.13
		(0.54)	(0.07)	(0.54)	(0.07)	(0.06)	(0.08)
ln(Experience) × Immigrant			-0.17		-0.17	-0.17	-0.17
			(0.06)		(0.06)	(0.04)	(0.07)
Community Size /10^6		-0.06	-0.12	-0.06	-0.11	-0.11	-0.12
		(0.91)	(0.84)	(0.91)	(0.84)	(0.84)	(0.84)
Community Size /10^6 × Immigrant				-0.34	-0.07	-0.07	-0.07
				(0.94)	(0.99)	(0.98)	(0.99)
ln(Home Country GDPpc/10000)	-0.22	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Owners' Schooling Years /10	0.39	0.38	0.37	0.38	0.37	0.37	0.37
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Owners' Age /10	-0.85	-0.87	-0.86	-0.87	-0.86	-0.86	-0.86
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Owner's Age^2 /10^2	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Share Male Owners	-0.11	-0.10	-0.11	-0.11	-0.11	-0.11	-0.11
	(0.35)	(0.37)	(0.36)	(0.37)	(0.37)	(0.36)	(0.37)
ln(Employment)	-0.33	-0.34	-0.33	-0.34	-0.33	-0.33	-0.33
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ln(Number of Owners)	-0.05	-0.04	-0.08	-0.04	-0.08	-0.08	-0.07
	(0.80)	(0.84)	(0.70)	(0.84)	(0.70)	(0.69)	(0.70)
ln(Firm Age)	-0.07	-0.06	-0.06	-0.06	-0.06	-0.06	-0.07
	(0.04)	(0.12)	(0.10)	(0.12)	(0.10)	(0.09)	(0.16)
ln(Firm Age) × Immigrant							0.02
							(0.83)
Economic Activity	-0.29	-0.25	-0.32	-0.25	-0.32	-0.32	-0.32
	(0.82)	(0.84)	(0.80)	(0.84)	(0.80)	(0.81)	(0.80)
Constant	1.90	1.35	1.37	1.35	1.37	1.37	1.38
	(0.30)	(0.45)	(0.43)	(0.45)	(0.43)	(0.43)	(0.43)
ln(σ_v)						-11.45	
						(0.41)	
Wald Statistic	379.35	385.52	391.41	385.98	391.91	297.59	392.49
Prob > χ^2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Degrees of Freedom	218	221	222	222	223	223	224
Pseudo R^2	0.10	0.11	0.11	0.11	0.11	0.11	0.11
		2 vs1	**3 vs 2**	**4 vs 2**	**5 vs 2**		**7 vs 5**
Wald Statistic (dof)		7.61 (3)	3.68 (1)	0.01 (1)	3.69 (2)		0.05 (1)
Prob > χ^2		0.06	0.06	0.94	0.06		0.83
					5 vs 3		
Wald Statistic (dof)					0.00 (1)		
Prob > χ^2					0.99		
					5 vs 4		
Wald Statistic (dof)					3.65 (1)		
Prob > χ^2					0.06		

Notes: p-values (in parentheses) are obtained from cluster-robust standard errors. σ_v is the panel–level standard deviation component. Sector, Location and Year dummies are included in all regressions. Number of observations is 2560 for all regressions.

Table 4. Regression Results: Exit by Close and Distant Immigrants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I-Distant	-0.03	0.21	-0.03	0.26	-0.01	-0.02	0.00	0.29	0.12	0.29
	(0.88)	(0.36)	(0.87)	(0.27)	(0.97)	(0.92)	(0.99)	(0.23)	(0.71)	(0.21)
I-Close	0.37	0.38	0.39	0.46	0.37	0.36	0.36	0.46	0.55	0.46
	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.00)
ln(Experience)	0.03	0.06	0.05	0.12	0.03	0.03	0.03	0.12	0.12	0.12
	(0.51)	(0.20)	(0.45)	(0.10)	(0.50)	(0.50)	(0.49)	(0.09)	(0.09)	(0.08)
ln(Experience) × I-Distant		-0.25		-0.30				-0.29	-0.26	-0.29
		(0.04)		(0.02)				(0.03)	(0.07)	(0.02)
ln(Experience) × I-Close			-0.03	-0.10				-0.10	-0.13	-0.10
			(0.71)	(0.28)				(0.28)	(0.21)	(0.25)
Community Size /10^6	-0.18	-0.17	-0.19	-0.20	-0.15	-0.18	-0.15	-0.18	-0.20	-0.18
	(0.75)	(0.76)	(0.74)	(0.72)	(0.79)	(0.76)	(0.80)	(0.76)	(0.72)	(0.75)
Community Size /10^6 × I-Distant					-22.55		-21.99	-21.53	-21.18	-21.53
					(0.00)		(0.00)	(0.00)	(0.00)	(0.67)
Community Size /10^6 × I-Close						7.39	7.26	7.35	7.39	7.35
						(0.01)	(0.02)	(0.01)	(0.01)	(0.23)
ln(Home Country	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Owners' Schooling Years /10	0.34	0.35	0.33	0.34	0.34	0.34	0.34	0.35	0.34	0.35
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
Owners' Age /10	-0.84	-0.84	-0.84	-0.83	-0.83	-0.82	-0.82	-0.82	-0.80	-0.82
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Owner's Age^2 /10^2	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)	(0.07)	(0.08)	(0.07)
Share Male Owners	-0.08	-0.07	-0.08	-0.08	-0.09	-0.06	-0.08	-0.08	-0.08	-0.08
	(0.52)	(0.54)	(0.51)	(0.52)	(0.45)	(0.59)	(0.51)	(0.52)	(0.52)	(0.51)
ln(Employment)	-0.33	-0.32	-0.33	-0.32	-0.33	-0.33	-0.33	-0.32	-0.32	-0.32
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ln(Number of Owners)	-0.05	-0.05	-0.06	-0.08	-0.06	-0.05	-0.06	-0.08	-0.09	-0.08
	(0.78)	(0.78)	(0.75)	(0.70)	(0.74)	(0.79)	(0.75)	(0.68)	(0.66)	(0.67)
ln(Firm Age)	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	-0.05	-0.06	-0.07	-0.06
	(0.13)	(0.12)	(0.13)	(0.11)	(0.14)	(0.13)	(0.14)	(0.12)	(0.18)	(0.11)
ln(Firm Age) × I-Distant									-0.08	
									(0.48)	
ln(Firm Age) × I-Close									0.05	
									(0.49)	
Economic Activity	-0.32	-0.20	-0.35	-0.27	-0.33	-0.31	-0.32	-0.27	-0.23	-0.27
	(0.80)	(0.87)	(0.78)	(0.83)	(0.79)	(0.81)	(0.80)	(0.83)	(0.86)	(0.84)
Constant	1.58	1.52	1.59	1.53	1.57	1.52	1.52	1.47	1.49	1.47
	(0.37)	(0.39)	(0.36)	(0.38)	(0.37)	(0.39)	(0.39)	(0.40)	(0.39)	(0.40)
ln(σ_v)										-11.24
										(0.35)
Wald Statistic	397.37	403.31	397.63	404.51	411.59	400.46	415.40	423.13	426.81	305.77
Prob > χ^2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Degrees of Freedom	222	223	223	224	223	223	224	226	228	226
Pseudo R^2	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
		2 vs 1	**3 vs 1**	**4 vs 1**	**5 vs 1**	**6 vs 1**	**7 vs 1**	**8 vs 1**	**9 vs 8**	
Wald Statistic (dof)		4.05 (1)	0.14 (1)	5.22 (2)	12.48	5.99 (1)	18.79	24.08 (4)	1.30 (2)	
Prob > χ^2		0.04	0.71	0.07	0.00	0.01	0.00	0.00	0.52	
				4 vs 2			**7 vs 5**	**8 vs 4**		
Wald Statistic (dof)				1.16 (1)			5.78 (1)	17.63 (2)		
Prob > χ^2				0.28			0.02	0.00		
				4 vs 3			**7 vs 6**	**8 vs 7**		
Wald Statistic (dof)				5.12*			13.42	4.87 (2)		
Prob > χ^2				0.02			0.00	0.09		

Notes: In this table I-Distant and I-Close stand for Immigrant-Distant and Immigrant-Close respectively. p-values (in parentheses) are obtained from cluster-robust standard errors. σ_v is the panel–level standard deviation component. Sector, Location and Year dummies are included in all regressions. Number of observations is 2560 for all regressions.