Management Science

Personal Preferences, Entrepreneurs' Location Choices, and Firm Performance

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Whereas early location work established the role of economic factors in entrepreneurs' location choices, recent studies suggest personal reasons as another factor. However, because the places where entrepreneurs want to live are often the places where they will likely do well, it is difficult to empirically separate the two mechanisms. We focus on entrepreneurs founding firms abroad, allowing us to more effectively isolate the effect of personal location attractiveness. We leverage entrepreneurs' decisions to relocate and manage their firms personally or to remain in a home country and hire a manager. We find that entrepreneurs who view a host country as an attractive location are more likely to relocate and manage their firms personally. However, such entrepreneur-managers have lower firm performance. These results are consistent with the idea that entrepreneurs are more likely to reside in personally attractive places and are willing to substitute benefits of living there for some firm profit.

1. Introduction

Researchers have long been interested in understanding how location characteristics may factor into the entrepreneurial choice and affect the performance of new ventures. Early work has extensively studied the role of economic determinants, such as the cost of inputs, access to markets and resources, agglomeration externalities, and knowledge spillovers (e.g., Alcacer and Chung 2007, Caves 1996, Coughlin et al. 1991, Kalnins and Chung 2004, Krugman and Obstfeld 1997). It has been expected that entrepreneurs would prefer locations with more favorable economic characteristics because this would improve venture outcome.

Recent studies, however, have noted that entrepreneurs are often attracted to regions with less favorable economic environments (e.g., Figueiredo et al. 2002, Sorenson and Audia 2000). In an effort to explain this puzzle, several studies have proposed that entrepreneurs may choose regions for personal reasons, rather than because these locations are best for doing business (e.g., Dahl and Sorenson 2009, Michelacci and Silva 2007). However, this proposition has received little direct support. The reason for this is that the places where entrepreneurs would want to live are often also the places where they are likely to do well. Prior work that has studied the role of the location attractiveness has primarily focused on entrepreneurs

who remain in their home regions and measured personal attractiveness of a place by distance to family and friends or region tenure. Although entrepreneurs indeed seem more likely to locate near family and friends (e.g., Dahl and Sorenson 2009), they may be driven by the financial benefits of their social capital rather than by the desire to be close to their loved ones (e.g., Dahl and Sorenson 2012, Michelacci and Silva 2007). Thus far, the location literature has been unable to empirically separate these two mechanisms (Dahl and Sorenson 2012). As a result, the importance of the personal attractiveness of a place in the entrepreneur's location criteria remains unclear.

In this paper, we address this gap by using a setting that arguably allows us to better isolate the effect of personal location attractiveness from the impacts of other location characteristics. Our aim is to provide a better understanding of whether entrepreneurs factor personal location attractiveness into their entrepreneurial choice and if such personal attractiveness may compensate for lower firm performance. We use a setting of entrepreneurs who locate their firms outside their home regions, which limits the impact of social capital. We investigate whether personal attractiveness of a host region can motivate an entrepreneur to relocate there and manage a firm personally instead of hiring an agent. We also examine whether

entrepreneurs who are driven to a region for nonfinancial reasons exhibit lower firm performance.

Specifically, we focus on a sample of foreign entrepreneurs in Russia. Foreign entrepreneurs are individuals who found firms outside of their native countries, such as an American who opens a fashion-photography shop in Japan or a Vietnamese founder of a software firm in Canada. Thanks to advanced communication and transportation technologies, opening a firm abroad has become easier and does not necessarily require an entrepreneur to live near the operating facilities. As a result, some foreign entrepreneurs may remain in their home countries, at a significant distance from their ventures. Nevertheless, managing a firm and overseeing its everyday operations still require an entrepreneur to relocate to a host country because management costs significantly increase with distance. Entrepreneurs who prefer to remain in their home countries typically hire local professional managers in the host country to oversee firm operations.

The setting of foreign entrepreneurs in Russia suits our purpose well for two reasons: First, Russia has a short immigration history and does not have an open immigration system. Therefore, at the time of the firm founding, foreign entrepreneurs from our sample were primarily living outside of Russia. This allows us to limit the effect of the social capital that would result from the long host-location tenure. Second, foreign entrepreneurs in Russia need to be managers of their firms to get residence visas. If an entrepreneur considers Russia an attractive place to live and decides to relocate, he or she has to become a manager of the firm. Thus, we have foreign entrepreneurs who manage their firms in Russia personally and live in Russia as well as foreign entrepreneurs who hire managers for their ventures in Russia and live abroad. Both groups' firms are affected by economic location factors, but only the owner-managers experience the personal benefits and costs of living in Russia. We then use the choice of manager to get leverage on the entrepreneurs' location preferences.

In general, entrepreneurs seem to be quite famous for making strategic choices based on considerations other than financial returns. For example, Hamilton (2000) argues that nonfinancial benefits, such as autonomy, strongly affect an individual's decision to become an entrepreneur. Gomez-Mejia et al. (2007) demonstrate that owners of Spanish olive oil mills are willing to accept high business risk in return for nonfinancial benefits of family control. Moreover, these and other studies suggest that entrepreneurship seems to provide lower financial returns than regular employment, presumably because entrepreneurs are compensated with nonfinancial returns (e.g., Hamilton 2000, Moskowitz and Vissing-Jorgensen 2002). Surveyed entrepreneurs also demonstrate a preference for

nonfinancial benefits over financial returns in their occupation choice (Benz and Frey 2008, Blanchflower and Oswald 1998, Santarelli and Vivarelli 2007). Given that nonfinancial returns seem to influence individuals' self-employment decision, one might believe that nonfinancial returns would also influence entrepreneurs' location and owner-management choice and the kind of firms that entrepreneurs have found in those locations.

In line with the above statement, we expect that *entrepreneurs who view Russia as a more attractive place to live will be more likely to relocate there and manage their firms personally*. They may also substitute personal relocation benefits for some firm profit. Therefore, *for firms with foreign owner-managers, there will be a negative relationship between the relative attractiveness of Russia and firm profit*. The literature is not yet clear about the underlying mechanisms for the lower firm profit, but we expect that profit discount may come from several potential sources. Entrepreneurs may establish and manage firms in Russia, even when Russia does not provide a good economic environment for their businesses. In addition, entrepreneurs who desire to live in Russia may relocate to Russia and manage their firms there, even when they are not good at entrepreneurship or are not the best managers for their firms. They may also found and manage lower-quality firms in Russia. In contrast, entrepreneurs viewing Russia as a less attractive place to live will be more likely to hire managers and would require a large firm-performance premium to found and manage a firm in Russia.

Immigration studies suggest that location attractiveness is determined by its cultural, social, and geographic characteristics, which may include access to better education for kids, high-quality health services, low crime level, higher standards of living, and better climate (e.g., Graves 1980, Ritchey 1976, Scott et al. 2005). In our study, we focus on the net benefits of relocation, i.e., the difference between the personal benefits and costs. We also focus on the relative rather than absolute attractiveness of Russia. Entrepreneurs will be more likely to relocate and manage their firms in Russia if Russia is more attractive for them than their home country. Thereby, entrepreneurs from some nations may experience higher personal benefits from relocation. We proxy for the attractiveness of Russia for an entrepreneur from a given foreign country with the number of the entrepreneur's nationals working in Russia. To address endogeneity concerns, we use exogenous home-country policy shocks that presumably increase the relative returns to relocation to Russia. One limitation of our setting is that we do not observe entrepreneurs' opportunity cost at home, which may be correlated with migration and at least

partially account for our results. Although we cannot completely rule out this alternative, we address it using models with more exogenous location characteristics, such as weather, which are least likely to be correlated with the opportunity cost.

We find that entrepreneurs who presumably view Russia as an attractive country and thereby would experience higher nonfinancial relocation benefits are more likely to relocate there and become owner-managers, despite getting lower financial returns from their firms. For example, an entrepreneur from China would be 25 percentage points more likely to manage a firm in Russia than an owner of an otherwise similar firm from the United States. However, because of the substitution effect of the relocation benefits, an entrepreneur-manager from China would have an operating return on assets (OROA) that was 7 percentage points lower than an entrepreneur-manager of a similar firm from the United States. These findings are consistent with the idea that personal location attractiveness positively affects entrepreneurs' location choice. Moreover, entrepreneurs who choose to locate in attractive places will be willing to accept lower firm performance in return for their personal relocation benefits.

2. Data and Main Variables

Setting. We examine the role of personal location attractiveness in the entrepreneur's decision to relocate and become an owner-manager. To do so, we focus on foreign entrepreneurial firms founded in Russia between 1997 and 2008. Russia suits our purposes well for two reasons: first, it allows us to significantly reduce the confounding impacts of social capital and local knowledge. Russia has a short immigration history and does not have an open immigration system. Therefore, at the time of the firms' founding, the majority of foreign entrepreneurs lived outside of Russia. Second, foreign entrepreneurs in Russia need to be managers of their firms to get residence visas. Firm ownership does not automatically justify an entrepreneur's residence in Russia; therefore, nonmanaging foreign entrepreneurs cannot relocate easily to Russia. We use the choice of manager to get leverage on the entrepreneurs' location preferences. This also gives us an advantage of having two groups of firms: firms with owner-managers affected by both nonfinancial benefits of relocation and economic impacts and firms with hired managers affected by economic impacts, but not the entrepreneurs' personal benefits of relocation.

Data. Similar to prior studies by Aldrich and Waldinger (1990) and Saxenian et al. (2007), we define a *foreign entrepreneurial firm* as a firm owned by one or several non-Russian individuals. We use foreign entrepreneurial firms that were founded in Russia between 1997 and 2008 and operated for at least one year. The data on foreign entrepreneurs in Russia come from the Ruslana subsample of the Amadeus database, a private database assembled by the Bureau van Dijk (BvD) from the annual reports that firms file to government agencies. BvD provides reliable firm data, which have been extensively used in the organization research (e.g., Belenzon et al. 2013, Bloom et al. 2011, Kulchina 2014). The database has several unique features essential for our analysis. It provides comprehensive coverage of private firms, allowing us to study entrepreneurial start-up firms. Moreover, it is one of the very few existing databases that report the names of firm owners and top managers, allowing us to identify firms with owner-managers and hired managers.

Entrepreneur's Location Choice. We capture entrepreneurs' location choice with the owner-manager dummy variable. In our setting, entrepreneurs managing their firms personally are located in Russia, whereas nonmanaging entrepreneurs do not have residence visas and typically live abroad and hire managers for their Russian firms. *Owner-manager* is a dummy variable that equals 1 when a firm owner serves as a firm CEO.[1]

Firm Performance. Similar to the prior research (e.g., Anderson and Reeb 2003), we measure firm performance as the ratio of operating profit (earnings before interest and taxes) to the book value of assets (OROA).

Sample. To examine the effect of the attractiveness of Russia on the entrepreneurs' decisions to relocate there and become owner-managers, we use a cross-sectional data set of firms at the time of entry. To examine whether the performance of firms with owner-managers varies with the relative location attractiveness, we use two samples: a pooled cross-sectional data set where each firm may be observed for up to 11 years and a cross section of firms at the age of 1 year. The estimation sample consists of 4,475 firms. Of these, 53% operates in the trade sector (retail and wholesale), 25% in services, 10% in manufacturing, 8% in construction, and 4% in other industries. The most common home countries are China (28% of firms), Belarus (12%), Turkey (10%), India (5%), and Ukraine (4%). Entrepreneurs manage 64% of the firms. The remaining 36% is operated by hired managers. The complete distribution of firms by country and management type appears in Table A.2 in the appendix. Table 1 reports variable definitions and key statistics, and Table 2 provides a matrix of correlation coefficients.

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[1] The details of the manager assignment procedure are explained in the appendix.

Table 1   Main Variables

Variable	Description	Mean	Std. dev.	Min	Max	No. of obs.
OROA	Ratio of operating profit (earnings before interest and taxes) to the book value of assets	0.004	0.320	−2.738	1.36	7,889
Owner-manager	Equals 1 if one of the firm owners is the firm CEO and 0 otherwise	0.643	0.479	0	1	4,475
Ln(*assets*)	Natural log of the book value of assets (in Russian rubles)	11.896	2.858	8.335	22.778	4,475
Ln(*long debt*)	Natural log of 1 + Long debt (in Russian rubles)	1.129	3.669	0	19.930	4,475
Shareholders	The number of shareholders	1.078	0.355	1	8	4,475
Ln(*foreign workers*)	Natural log of the number of foreign workers from the entrepreneur's country of origin in Russia	3.838	1.153	0.182	5.842	2,372
Ln(*GDP*)	Natural log of the GDP of the entrepreneur's country of origin, measured in U.S. dollars	5.712	2.037	−2.040	9.567	4,232
Ln(*population*)	Natural log of the population of the entrepreneur's country of origin	4.459	2.224	−2.659	7.186	4,277
Color revolution	Equals 1 for three years after the color revolution, starting with the year when the revolution in the entrepreneur's country of origin took place	0.110	0.313	0	1	4,475
Ln(*distance*)	Natural log of the distance in km from the entrepreneur's country of origin to the firm's location in Russia	7.618	0.889	5.119	9.394	4,041
Jan. t° difference	Difference in January temperatures between the home country and the firm's location in Russia. A positive value means that the home country is warmer than the Russian region of location.	10.936	7.902	−11.800	38.800	4,417
Non-CIS	Equals 1 if the entrepreneur's country of origin is outside of the Commonwealth of Independent States (CIS) and Ukraine	0.800	0.400	0	1	4,475

Notes. The statistics for *OROA* are measured in the pooled cross-sectional data set. For other variables, the statistics are measured in the cross-sectional sample, where firms are observed in the year of founding. The number of employees is available starting from 2003. All monetary values are nominal. Inflation effect is captured by the year dummy variables in regression models. We removed outliers: the top and bottom 1% of observations on OROA. This removed observations with OROA above 150% and below −300%.

Attractiveness of Living in Russia. Measuring location attractiveness is challenging. Prior immigration research has demonstrated that an individual's decision to relocate is largely based on the population-level reasons common to all country nationals. Such reasons include better education, higher living standards, lower crime, and better climate.[2] In Hagelskamp et al. (2010), for example, many surveyed Chinese immigrants reported access to better education for kids as an important determinant of their immigration to the United States. Because population-level benefits and disadvantages are relatively common to all nationals of a foreign country, the immigration research has used the number of nationals immigrating to a host country as a proxy variable for the host country's attractiveness (e.g., Scott et al. 2005). The more nationals of country j immigrate to country f, the more likely it is that other individuals from country j will also find country f attractive. Thus, an entrepreneur with many nationals living in a host country is likely to also find this country attractive and be more willing to relocate and manage a firm in this country personally.

We use the number of the entrepreneur's nationals working in Russia in year t, Ln(*foreign workers*) to proxy for the attractiveness of Russia for that foreign entrepreneur.[3] The data on foreign workers come from the Russian Statistical Labor Yearbooks and are provided for 19 countries between 1998 and 2008, which means that the data are available for 2,372 firms from our sample. Countries with missing data have slightly larger gross domestic product (GDP) and lower populations. Foreign entrepreneurs from such countries found firms that are a little larger and less likely to operate in construction and extraction industries.

The distribution of the 2,372 firms from the final sample by country, manager type, and migration is shown in Table A.3 in the appendix. The number of

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[2] Individuals may also consider individual-level reasons, such as closeness to family and friends. Although we are not able to measure these reasons, we expect that they will create deviations from the baseline national desire to relocate and introduce some noise in the independent variable, thus making it harder for us to find significant relationships.

[3] We use the number of foreign workers rather than the number of immigrants for several reasons. First of all, at the time of the study, Russia did not provide reliable data on the number of immigrants in the studied period. Second, Russia does not have an open immigration system, and the number of people coming to Russia as immigrants is limited. Thus, even if available, the number of immigrants would not reflect the desire of foreign nationals to live in Russia, whereas the number of foreign workers is much more flexible. Foreign workers are also more flexible than permanent residents and can easily leave Russia if it is no longer an attractive location. Finally, since foreign owner-managers come to work in Russia, foreign workers are the most comparable group in their relocation goals. Immigrants may include refugees and the elderly with different criteria for relocation.

Table 2   Main Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
1 *OROA*	1.000										
2 *Owner-manager*	0.013										
3 Ln(*assets*)	0.121	−0.294									
4 Ln(*long debt*)	−0.016	−0.144	0.305								
5 *Shareholders*	−0.010	−0.037	0.084	0.073							
6 Ln(*foreign workers*)	−0.018	0.093	0.029	−0.037	0.037						
7 Ln(*GDP*)	−0.032	0.044	−0.163	0.030	−0.066	0.129					
8 Ln(*population*)	−0.034	0.197	−0.318	−0.042	−0.097	0.260	0.857				
9 *Non-CIS*	−0.067	−0.002	−0.045	0.061	0.003	−0.202	0.686	0.612			
10 *Color revolution*	0.038	0.034	−0.024	−0.052	0.018	0.262	−0.292	−0.281	−0.492		
11 Ln(*distance*)	−0.035	0.093	−0.248	−0.020	−0.124	−0.158	0.579	0.667	0.532	−0.345	
12 *Jan. t° difference*	−0.012	−0.140	0.116	0.057	0.006	0.098	0.016	−0.005	0.236	−0.106	0.076

foreign workers reflects the demand for relocation, but it may also capture the effect of population size, which may have a bounding effect to migration and capture the impact of some unobserved location characteristics. We account for this by using a natural logarithm of the foreign country population as a control variable.

In line with prior studies (e.g., Wasserman 2003), we include a range of control variables comprising firm and home-country characteristics that may influence the number of foreign workers, manager choice, and firm performance. We include the number of shareholders and the natural logarithms of assets and long debt. We also control for the GDP in nominal U.S. dollars. Finally, we use a dummy control variable for the firms that come from non-CIS countries, where CIS stands for the Commonwealth of Independent States and Ukraine as a participating state. CIS includes the majority of the former Soviet Union republics. In addition, in the appropriate models, we control for the firm's year of entry, age, two-digit level industry, country of origin, and the year of observation.

3.   Empirical Strategy

3.1.   Choice of Manager
We expect that entrepreneurs will be more likely to relocate to more personally attractive places and become owner-managers. To estimate this relationship, we start with a probit model controlling for observed firm and home-country characteristics:

$$\Pr(OM_i = 1) = \beta_0 + \beta_1 \text{Ln}(foreign\ workers)_j$$
$$+ \sum_{k=1}^{n} \beta_k Z_{ik} + \sum_{p=1}^{m} \beta_p G_{jp} + D_i + \varepsilon_i, \quad (1)$$

where i is the firm, j is the firm's country of origin, OM_i is the owner-manager dummy variable, *foreign workers*$_j$ is the number of foreign workers from country j in Russia in the year of the firm's founding, Z_{ik} are firm-level control variables, G_{jp} are country-level control variables, D_i are dummy variables, indicating the year when the firm was founded in Russia, and ε_i is an error term. All time-variant variables are measured in the year of the firm's entry. Firms are observed at the time of entry. Standard errors are robust and clustered on the country of origin.

Even after the inclusion of control variables, a causal interpretation of the observed relationship may be problematic because of the endogeneity concerns. For example, some unobserved home-country characteristics may simultaneously affect the relocation benefits and the probability that a foreign entrepreneur will become an owner-manager. To address these endogeneity concerns, we need a shock to the entrepreneur's home country that would increase the relative attractiveness of emigration but would not affect entrepreneurs' managerial skills and resources. As such a shock, we use *color revolutions* (primarily nonviolent movements against government regimes that resulted in government change) and similar civil movements that were aimed at overthrowing government leaders but did not succeed. Examples of color revolutions are Georgia's Rose Revolution in 2003, Ukraine's Orange Revolution in 2004, and Lebanon's Cedar Revolution in 2005. Examples of the protest civil movements similar to color revolutions but not followed by the change of government leaders are movements in Belarus and Azerbaijan in 2005. Color revolutions and similar movements took place in 10 countries between 2000 and 2007 (see Table A.4 in the appendix for the complete list of countries). Henceforth, we refer to both types of events as color revolutions.

These revolutions had a dual effect. First, they created relatively large groups of people who were dissatisfied with the outcome of the movement, even if they had not actively participated in it. Second, many of these events created political turbulence in the country that often negatively affected the sense of

security for the general public. Thus, people viewed emigration slightly more favorably after a color revolution and were more willing to relocate to other countries, including Russia. Indeed, we have found a significant increase in the number of immigrants from the countries with color revolutions to Canada and other Organization for Economic Co-operation and Development (OECD) countries in the three consecutive years starting with the revolution year (see Table A.5 in the appendix for details).

We expect that color revolutions increased the attractiveness of relocating to manage a firm in Russia relative to staying at home. As a result, foreign entrepreneurs from the affected countries founding their firms in Russia after a color revolution would be more likely to relocate to Russia and become owner-managers than their nationals who founded firms in Russia earlier. Color revolutions did not, however, affect the business environment in Russia. They also typically did not lead to the significant change of economic conditions in home countries or immediate change of the entrepreneurs' characteristics, such as skills, experience, or wealth (see Table A.5). Since establishing a firm abroad may take several years, we investigate the effect of color revolutions on the probability of owner-management in the three consecutive years starting with the revolution year. A difference-in-differences model is presented below:

$$\Pr(OM_i = 1) = \beta_0 + \beta_1 \, color \; revolution_j + \sum_{k=1}^{n} \beta_k Z_{ik}$$
$$+ \sum_{p=1}^{m} \beta_p G_{jp} + D_i + C_j + \varepsilon_i, \qquad (2)$$

where *color revolution* is a dummy variable that equals 1 for the country where the revolution took place for the three consecutive years starting with the year of the revolution. The effects of the postrevolution time period and the home country are captured by the year of founding D_i and the country of origin C_j dummy variables. The treated group consists of firms from the countries that experienced color revolutions. The control group comprises firms from other countries. Firms are observed at the founding time. The model is estimated by probit. Standard errors are clustered on country.

3.2. Performance Implications

We expect that entrepreneurs use the nonfinancial benefits of relocation to compensate for lower firm performance in their utility functions. Therefore, we anticipate that entrepreneurs relocating to an attractive place will be more likely to accept lower firm performance. This means that owner-managers with more nationals working in Russia, who presumably view Russia as an attractive place to live, will be

more willing to accept lower firm profit than owner-managers, with fewer nationals in Russia (see Equation (3) for the model).

$$OROA_{it} = \beta_0 + \beta_1 \, OM_i + \beta_2 \, \mathrm{Ln}(foreign \; workers)_j$$
$$+ \beta_3 \, OM_i \times \mathrm{Ln}(foreign \; workers)_j$$
$$+ Controls + \varepsilon_{it}, \qquad (3)$$

where *Controls* include firm-level and country-level control variables as well as the founding year and the year of observation dummy variables. We use a pooled cross-sectional data set of firms.[4] Standard errors are clustered on country.

To address the endogeneity concerns, we examine how color revolutions affect the performance of firms with owner-managers. We expect that for the owner-managers who entered Russia in the three years after a color revolution, the attractiveness of relocation should be higher, and thus their firms' OROAs lower, than that for those owner-managers who entered before. In contrast, firms with hired managers should not experience any decrease in OROA. The difference-in-differences model, where we compare performance of firms at the age of one year, is presented in Equation (4).[5] Standard errors are clustered on country.

$$OROA_i = \beta_0 + \beta_1 \, color \; revolution_j + \sum_{k=1}^{n} \beta_k Z_{ik}$$
$$+ \sum_{p=1}^{m} \beta_p G_{jp} + D_i + C_j + \varepsilon_i, \qquad (4)$$

4. Results

Table 3 compares entrepreneurial start-up companies from countries with high and low work migration to Russia, which presumably correspond with high and low personal benefits of relocation to Russia. As expected, entrepreneurs from countries with high migration to Russia, and presumably high relocation benefits, seem to be more likely to come to Russia and become owner-managers. The average performance of firms with owner-managers from high-migration countries is lower than that of other owner-managed firms. This observation is consistent with the notion that entrepreneurs who consider Russia an attractive place to live are more likely to relocate and

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[4] The number of foreign workers is measured in the year of founding. Control variables are measured in the year of observation. Measuring control variables in the year of founding does not change the findings.

[5] We refrain from using multiple years per firm in order not to inflate the difference-in-differences results. One year after founding was chosen as the year when the majority of founded firms are still present in the data. However, the findings are robust to using multiple years of observation per firm.

Table 3   Management Type and Performance of Firms from Countries with High and Low Work Migration to Russia

Country type	(1) Owner-manager	(2) Hired manager	(3) Difference (1) − (2)
Shares of firms with owner-managers and hired managers in %			
High migration (Russia is more attractive: High relocation benefits) (%)	76	24	52
Low migration (Russia is less attractive: Low relocation benefits) (%)	46	54	−8
Difference, High − Low (%)	30	−30	
Mean OROA in %			
High migration (Russia is more attractive: High relocation benefits) (%)	0.1	0.7	−0.6
Low migration (Russia is less attractive: Low relocation benefits) (%)	7.1	−1.1	8.2***
Difference, High − Low (%)	−7***	1.9	

Note. Work migration is defined as high when an average migration from country *j* to Russia across the observation period is above the sample mean.
***Denotes significance at 1%.

manage their firms in Russia personally, but such owner-managers have lower firm performance compared with other owner-managers. This comparison, however, does not account for the differences between firms, so we proceed with further tests to account for these and other endogeneity concerns.

4.1. Choice of Manager
Table 4 suggests a positive relationship between the attractiveness of living in Russia and an entrepreneur's choice to relocate to Russia and become an owner-manager. Models 1 and 2 show that foreign entrepreneurs with more nationals working in Russia, who presumably view Russia as a more attractive place to live, are more willing to come and manage their firms in Russia personally. Coefficients for the control variables suggest that smaller firms with lower debt and fewer shareholders, coming from countries with low GDPs and large populations, are also more likely to have owner-managers.

To give an idea of the size of the observed association, Figure 1 illustrates predicted probabilities of owner-management depending on the number of the entrepreneur's nationals working in Russia. For example, for a firm with average characteristics, the probability of having an owner-manager is 71% if the owner has 229,000 nationals working in Russia (as for China) and 46% if an entrepreneur has 5,000 nationals working in Russia (as for the United States).

The difference-in-differences probit model in column (3) of Table 4 suggests that entrepreneurs who founded firms in Russia after a color revolution were significantly more likely to manage their firms personally. The probability of owner-management for a firm founded after a color revolution is 15 percentage points higher than for a similar firm that had been founded before. A difference-in-differences model estimated by OLS also confirms these findings (see column (4)).

4.2. Performance Implications
The results in Table 5 are consistent with the idea that when becoming owner-managers, entrepreneurs

Figure 1   Predicted Probability That a Firm Will Have an Owner-Manager
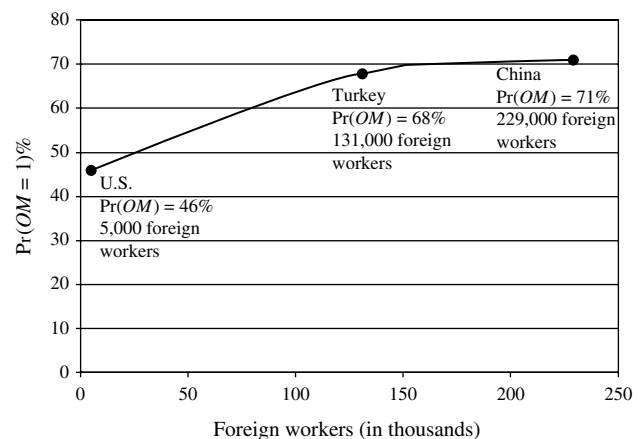
Note. Continuous variables are at their means (the means are taken from the sample used to estimate probit regression); date = 2007; non-CIS = 0; the numbers of foreign workers (thousand people) are the actual numbers of foreigners from the United States, Turkey, and China working in Russia in 2007.

Table 4 The Effect of the Relocation Benefits on the Owner-Manager Choice

	(1)	(2)	(3)	(4)
Dependent variable:		Owner-manager		
Variables	Probit	Probit	Diff-in-diffs, probit	Diff-in-diffs, OLS
Ln(*foreign workers*)	0.166** (0.078)	0.173** (0.074)		
Color revolution			0.399*** (0.327)	0.132*** (0.034)
Ln(*GDP*)	−0.208** (0.091)	−0.199** (0.077)	−0.452 (0.327)	−0.157 (0.106)
Ln(*population*)	0.160** (0.076)	0.113* (0.067)	−1.778 (1.920)	−0.454 (0.592)
Ln(*assets*)	−0.092*** (0.012)	−0.076*** (0.010)	−0.083*** (0.012)	−0.027*** (0.003)
Ln(*long debt*)	−0.015 (0.010)	−0.015 (0.009)	−0.002 (0.006)	−0.001 (0.002)
Shareholders	−0.080 (0.115)	−0.111 (0.106)	−0.121* (0.110)	−0.045* (0.025)
Non-CIS	0.413 (0.254)	0.441* (0.229)		
Constant	0.890*** (0.302)	0.0409 (0.434)	−0.877 (1.618)	3.912 (3.259)
Date dummies	Yes	Yes	Yes	Yes
Country dummies			Yes	Yes
Industry dummies		Yes		
R^2/Pseudo R^2	0.148	0.183	0.170	0.217
N	2,372	2,372	4,475	4,475

Notes. Samples: Models 1 and 2 include foreign entrepreneurial firms that have country of origin migration data. Models 3 and 4 include all firms. Firms are observed at the time of founding. Samples are cross-sectional. Robust standard errors clustered on country are in parentheses.

*, **, and *** denote significance at 10%, 5%, and 1% respectively.

are willing to substitute personal benefits of relocation to an attractive country for some firm profit. Models 1 and 2 show that owner-managers from countries with high work migration to Russia, who presumably view Russia as a more attractive place to live, have lower firm performance than other owner-managers. The results imply that for the 10% increase of the number of foreign workers in Russia from country j, the OROA of firms with owner-managers from country j will decrease by 0.18 percentage points. Figure 2 demonstrates that this effect would account for a difference of negative 7 percentage points between a firm with an owner-manager from China (229,000 workers in Russia) and a similar firm with an owner-manager from the United States (5,000 workers in Russia).

The difference-in-differences models with color revolutions in columns (3) and (4) are also in line with the notion that owner-managers viewing Russia as a more attractive place to live would have lower firm performance. Owner-managers who founded firms in Russia after a color revolution have a firm OROA 9 percentage points lower than owner-managers who founded firms in Russia earlier. Firms with hired managers, however, do not demonstrate any significant difference in performance.

5. Alternative Explanations and Robustness Checks

In this section, we address potential concerns and alternative explanations for the observed relationships between the benefits of relocation to an attractive country, the probability of the entrepreneur's relocation and owner-management, and firm performance. One concern may be that our proxy variable for the attractiveness of living in Russia, work migration, might be too general and fail to effectively reflect the attractiveness and disutility of relocation. Thus, in this section, we explore the impacts of two variables that more directly affect the attractiveness of living in Russia: the distance and the difference in average January temperatures between a home country and

Figure 2 Predicted Effect of an Owner-Manager on OROA Relative to a Hired Manager, in Percentage Points
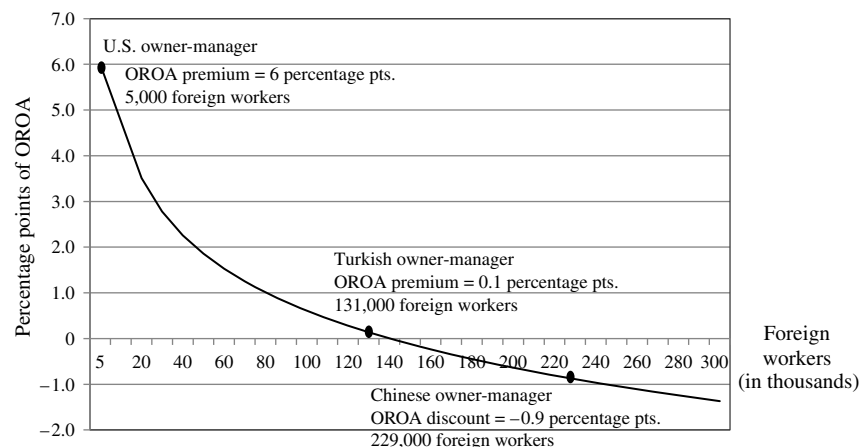
Table 5   The Effect of Relocation Benefits on Firm Performance

	(1)	(2)	(3)	(4)
Dependent variable:	OROA			
			Diff-in-diffs, owner-manager	Diff-in-diffs, hired manager
Variables	OLS	OLS		
Owner-manager	0.089***	0.078***		
	(0.023)	(0.023)		
Owner-manager × Ln(*foreign workers*)	−0.018***	−0.017***		
	(0.006)	(0.005)		
Ln(*foreign workers*)	−0.009	−0.009		
	(0.010)	(0.009)		
Color revolution			−0.093**	0.019
			(0.041)	(0.031)
Ln(*GDP*)	−0.009	−0.011*	0.165	−0.006
	(0.006)	(0.006)	(0.161)	(0.096)
Ln(*population*)	0.020**	0.019**	−0.152	0.030
	(0.008)	(0.007)	(0.382)	(0.784)
Ln(*assets*)	0.013***	0.015***	0.012**	0.018***
	(0.004)	(0.003)	(0.006)	(0.006)
Ln(*age*)	0.024	0.017		
	(0.016)	(0.018)		
Ln(*long debt*)	−0.004***	−0.004***	−0.005*	−0.005***
	(0.001)	(0.001)	(0.003)	(0.006)
Shareholders	−0.112***	−0.114***	−0.069**	−0.003
	(0.028)	(0.030)	(0.027)	(0.027)
Non-CIS	−0.060**	−0.049*		
	(0.027)	(0.027)		
Constant	0.042	−0.053	−0.003	−0.142
	(0.062)	(0.078)	(1.729)	(4.361)
Date dummies	Yes	Yes	Yes	Yes
Country dummies			Yes	Yes
Industry dummies		Yes		
Year dummies	Yes	Yes		
R^2	0.032	0.047	0.118	0.070
N	7,889	7,889	2,061	1,143

Notes. Samples: Models 1 and 2 include foreign entrepreneurial firms that have country of origin migration data. Models 3 and 4 include all firms. In Models 1 and 2, firms are observed for several years; samples are pooled cross-sectional. In Models 3 and 4, firms are observed at the age of one year; samples are cross-sectional. Robust standard errors clustered on country are in parentheses (clustering on firm in Models 1 and 2 does not change the results).

    *, **, and *** denote significance at 10%, 5%, and 1% respectively.

a firm's location in Russia. Because Russia is a large country with a variety of climate zones, it provides sufficient variation of both indicators. Prior literature suggests that individuals prefer to live closer to their family and friends (e.g., Dahl and Sorenson 2010) and in regions with familiar climates (e.g., Graves 1980). Thus, we expect that the larger differences in distance and temperatures would decrease the attractiveness of relocation and the probability of owner-management. In Table 6, we present the results of probit models for distance and weather with country-of-origin and region-of-location fixed effects.

These models suggest that a longer distance and a greater difference in weather are indeed associated with a lower probability of the entrepreneur's relocation and owner-management. Their results also confirm the negative relationships between the location attractiveness and firm performance. For example, entrepreneurs from warmer countries who come and manage their firms in Russia require a higher firm-performance premium because Russia is less attractive for them as a place to live, whereas owner-managers from colder countries have lower firm performance (see column (3)).

Table 6   Robustness Checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	Owner-manager	Owner-manager	OROA	OROA	Owner-manager	OROA	Survived for five years	OROA
Variables:	Distance	Climate	Climate	Quota system for CIS firms	Larger firms	Survival	Failed revolutions
Model:	Probit	Probit	OLS	OLS "DD"	Probit "DD"	OLS	Probit	OLS "DD"
Ln(*distance*)	−0.195** (0.094)							
Jan. t° difference		−0.054*** (0.017)	−0.017 (0.013)					
Owner-manager × Jan. t° difference			0.002** (0.001)					
Ln(*foreign workers*)						−0.027 (0.022)	0.242** (0.107)	
Color revolution								−0.118** (0.051)
CIS × Post2006				−0.044 (0.229)	0.367 (0.336)			
Owner-manager		−0.001 (0.012)				0.233** (0.086)	0.807* (0.432)	
Owner-manager × Ln(*foreign workers*)						−0.065** (0.023)	−0.306** (0.126)	
Firm-level controls	Ln(*assets*), ln(*long debt*), shareholders, ln(*age*) in pooled cross-sectional models							
Home-country controls	Ln(*GDP*), ln(*population*), *non-CIS* (in models without country dummies)							
Constant and dummies	Date, country, industry, region, year (for OROA)			Date, country	Date, country	Date, year	Date, year	Date, country
R^2/Pseudo R^2	0.227	0.213	0.080	0.059	0.104	0.282	0.406	0.125
N	4,041	4,417	8,729	617	1,426	201	1,129	1,949

Notes. Samples: Models 4–7 include firms from countries with reported work migration; other models include firms from all countries. Models 1–3 include all firms for which the distance and temperature differences could be calculated. Models 4 and 5 include firms founded after 2002. Model 4 includes firms with owner-managers only; firms are observed at the age of one year. Model 6 includes firms with more than 50 employees. Model 7 includes firms founded before 2004. Model 8 includes firms at the age of one year, excluding firms from countries that changed government after a color revolution. Robust standard errors are clustered on country. "DD" stands for difference-in-differences.

*, **, and *** denote significance at 10%, 5%, and 1% respectively.

One might also wonder if our proxy variable may capture some additional influences besides the relative location attractiveness and the desire to relocate. In considering these potential alternative impacts, one should first note that the majority of influential factors, such as higher ethnic demand, ethnic networks, or more abundant supply of cheap ethnic labor, should increase the performance of owner-managed firms (e.g., Kalnins and Chung 2006), rather than have the negative impact observed in our main findings. To be conservative, however, we also conduct a test to make sure that our results are not driven by some unobserved alternative impacts of ethnic community on firm performance. We use an exogenous negative shock to the size of the local ethnic community and examine whether it has the same effect on firm performance as we would expect from the diminished relocation attractiveness. Our shock is a work-visa policy change that decreased the number of foreign workers in Russia. In 2007, Russia introduced a binding quota for the number of foreign workers from CIS countries (or some former Soviet Union republics). This quota

exogenously limited the number of foreign workers from CIS, but it would not decrease the desire of CIS entrepreneurs to relocate.

Using a difference-in-differences model in Equation (5), we test whether this negative policy shock had a positive effect on the performance of owner-managed firms founded after the shock.

$$OROA_i = \beta_0 + \beta_1\,CIS_j \times Post2006_i + \sum_{k=1}^{n}\beta_k Z_{ik}$$
$$+ \sum_{p=1}^{m}\beta_p G_{jp} + D_i + C_j + \varepsilon_i, \qquad (5)$$

We limit the sample to owner-managed firms that were founded between 2003 and 2008[6] and examine the performance of firms at the age of one year. The

[6] We start our sample in 2003 to keep the control group of non-CIS firms free of changes in the estimation period. The sample is limited to countries with the migration data for comparability with the main analysis, but the results also hold for the complete sample.

treated group is firms from CIS countries; the control group is firms from non-CIS countries. *Post*2006 indicates that the firm entered after the policy change.

If the effect of the size of the local ethnic community is directly driving our results, we would expect a positive effect of the policy change on the performance of owner-managed firms. However, the effect of the policy change in column (4) is negative and not significant, which does not support this alternative explanation. There is also no evidence of a negative effect of the policy change on the probability of owner-management (see column (5)). These results suggest that what we capture in our main findings is unlikely to be a direct effect of the size of the local ethnic community. They also imply that it is unlikely that foreign workers could be a potential source of foreign owner-managers. Otherwise, the probability of owner-management would have decreased after the policy change.

Another potential concern with the findings is that we do not explicitly account for an entrepreneur's opportunity cost at home. Although we have no information on the entrepreneurs' alternative wages, we try to account for them by controlling for home-country GDP and GDP per capita, which are typically highly correlated with home-country wages. Furthermore, in the models with color revolutions, alternative wages are less of a concern; these models control for the country of origin, and color revolutions were unlikely to significantly affect home-country economic conditions, such as GDP and unemployment (see Table A.5). Moreover, to affect our findings in these models, the change in opportunity cost should be very specific to owner-managers, whereas any general changes would likely also decrease opportunity cost for some nonmanaging entrepreneurs and thereby lead to lower performance of firms with hired managers founded after a revolution. However, this is contrary to our observation in Table 5. Entrepreneurs' home-country income is also likely to be correlated with the entrepreneurs' wealth, whereas entrepreneurs' wealth is likely to be reflected in the size of the entrepreneurs' ownership stakes at the time of founding. However, when we control for ownership stakes in the choice models and performance models, the results remain the same.[7] Finally, the alternative models above that measure location attractiveness with the weather and distance are less likely to be subject to the opportunity cost concern. Weather differences between a home country and a region of location are unlikely to be correlated with opportunity cost as long as we control for the country of origin and the region of location in Russia. These models confirm our main findings (see columns (1)–(3)).

One might worry that owner-managers may potentially decrease firm performance if they take higher wages than hired managers when, for example, they prefer to get financial returns from firm ownership through wages rather than dividends. To make sure that this is not the case, we limited our sample to larger firms, with more than 50 employees, where the owner-manager's salary should be the least influential, and still found a substantial negative effect of the relocation benefits on the performance of owner-managed firm (see column (6)).

In further analysis, we also confirmed that our findings held when we used survival as a dependent variable. When a foreign owner-manager of a firm has high relocation benefits, such a firm has significantly lower chances of surviving for five years or longer than a similar firm managed by an entrepreneur with low relocation benefits (see column (7)). We use a probit model, where the dependent variable equals 1 if a firm has survived for five years or longer. These findings suggest that what we capture in our analysis is not a result of the ability of some owner-managers to misrepresent profit.

There is also a concern as to whether entrepreneurs who found firms in Russia after color revolutions may be different from prerevolution founders. We address this by checking if the effect of a successful revolution is different from an unsuccessful one. We anticipate that individuals dissatisfied with a current political regime are more likely to leave, but such dissatisfaction may be correlated with some unobserved human characteristics that may potentially affect firm performance. We expect that entrepreneurs who leave after an unsuccessful revolution should be most similar to the prerevolution founders because they are dissatisfied with the same political regime. Thus, we run our analysis excluding countries with successful revolutions and find the magnitude of the coefficient to be very similar to the main results (see column (8)).

Finally, we make sure that our results are robust to the sample and model modifications. In particular, the results hold when we modify the independent variable (use the number of foreign workers per capita), exclude trade firms, and remove firms from China—the largest supplier of the foreign entrepreneurs to Russia—or any other influential country.

6. Discussion and Conclusion

Researchers have long been trying to understand what attracts entrepreneurs to places. Although earlier studies focused on a broad range of economic characteristics of a location (e.g., Coughlin et al. 1991, Alcacer and Chung 2007), more recent papers have proposed that entrepreneurs may also be driven by the nonfinancial attractiveness of a place (e.g., Dahl and Sorenson 2009, Michelacci and Silva 2007). This

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[7] These and any other unreported results are available upon request.

proposition, however, has yet received little direct support. Because the regions where entrepreneurs prefer to live are often the regions where they are likely to do well, it is very difficult to empirically isolate the impact of the personal location attractiveness from other considerations.

In this paper, we have used a setting that allowed us to better separate the impact of the location attractiveness from the effect of the entrepreneur's social capital and economic factors. We have examined the role of the location attractiveness in the foreign entrepreneurs' decision to relocate and personally manage their firms in Russia. The Russian setting allowed us to use the choice of manager as a signal of the entrepreneur's location choice and to minimize the impact of the entrepreneur's local social capital. We have found that entrepreneurs who presumably viewed Russia as a more attractive place to live were more likely to relocate there and manage their firms personally. Moreover, such entrepreneur-managers demonstrated lower firm performance compared with other similar owner-managers.

From the theoretical point of view, our results are consistent with the notion that entrepreneurs are driven by the personal attractiveness of a place and are willing to give up some financial returns in exchange for living in an attractive place. There may be several potential sources of the firm-profit discount. Some entrepreneurs may start firms in attractive locations even if these places are not good for their businesses. Individuals may also found and manage firms to remain in attractive locations even when they are not good as entrepreneurs and managers or have poor business ideas. Note also that in the entrepreneurship studies, researchers often do not have the information to separate out the manager from the owner (e.g., Dahl and Sorenson 2009, Nanda and Sorensen 2010); therefore, top management choice may appear to influence "entry into entrepreneurship" measures in other studies. In future research, it may be useful to examine which of the potential underlying mechanisms may prevail.

While we have used foreign entrepreneurs in Russia as a convenient setting that would allow us to more effectively isolate the impact of personal location attractiveness, we expect that our findings could be generalized to a broader setting of foreign and domestic entrepreneurs. First, from our own observation, foreign entrepreneurs from our sample are not that different from the domestic entrepreneurs; they establish similar firms and concentrate in similar industries. In addition, prior studies have provided indirect evidence that domestic entrepreneurs may also be driven by personal location attractiveness (e.g., Dahl and Sorenson 2009). Furthermore, a noticeable share of domestic entrepreneurs (30%–50%)

found firms outside of their home regions (e.g., Dahl and Sorenson 2009, Figueiredo et al. 2002, Michelacci and Silva 2007, Parwada 2008), which creates direct similarities to the entrepreneurs who found firms abroad. Although we would welcome replication of our findings, on the theoretical level, our results would still be important even if the magnitudes of the effect may vary in other settings. We expect that some of these variations may depend on the particular aspects of the location attractiveness and on the individuals' sensitivity to the nonfinancial benefits. We have demonstrated the role of two location characteristics: weather and distance. In future research, it may also be useful to examine which other aspects of location may generate nonfinancial benefits for entrepreneurs. Entrepreneurs may, for example, consider religious freedom, quality of education, crime, standards of living, and other factors.

Another avenue for future research would be finding individual-level variations in relocation benefits and individuals' sensitivity to them. One of the limitations of this paper is that relocation benefits are measured on the home-country level rather than on the individual level. Although this measure reflects a general willingness of entrepreneurs of a given nationality to relocate, it does not account for individual deviations from the baseline. Finding a setting with individual-level measures of nonfinancial benefits and exogenous sources of their variation may be another potential avenue for future work.

Another potential limitation of our study is the limited ability to account for the entrepreneurs' opportunity cost. Low opportunity cost in countries with high emigration and color revolutions may motivate entrepreneurs to pursue lower-paying opportunities abroad. Although this interpretation is less plausible for the models with weather differences, some of our results may be at least partially driven by the variation in opportunity cost. In an attempt to further address this problem, we have run a set of robustness tests. Their results make us more comfortable with interpreting our findings in favor of the personal location attractiveness. However, because we are unable to directly measure the entrepreneurs' opportunity costs at home, we cannot completely rule out such an alternative explanation. To account for this bias in future research, it would be useful to find a setting where opportunity cost could be directly controlled for.

Whereas our findings most directly contribute to the literature on how location factors into entrepreneurial choice, they also have more general implications for the literature on the role of the entrepreneurs' nonfinancial benefits on firm performance. Prior studies assumed that nonfinancial benefits of entrepreneurship might

be responsible for the lower personal income of entrepreneurs relative to wage employees (e.g., Hamilton 2000, Moskowitz and Vissing-Jorgensen 2002); however, they failed to find a negative relationship between nonfinancial benefits and firm performance (e.g., Gimeno et al. 1997). Our results would suggest that when individuals decide to found and manage firms based, at least partly, on nonfinancial benefits, such as an attractive location, they are more likely to have lower-performing firms because their decisions are not solely profit maximizing.

In addition, by focusing on the choice between an owner-manager and a hired manager in entrepreneurial start-up companies, this paper contributes to the growing literature on the choice of managers and their role in organizations (e.g., Bertrand 2009, Chen and Hambrick 2012, Miller et al. 2013, Wasserman 2003, Wulf and Singh 2011). The manager's role is believed to be particularly critical in small, private businesses (e.g., Adams et al. 2005). Our findings suggest that entrepreneurs may become firm managers for reasons other than maximizing firm profits, but to achieve the nonfinancial benefits associated with managing a firm. When entrepreneurs do so, they risk reducing firm performance because they may not be the best managers for their firms or because some of their strategic choices may be based on nonfinancial motives.

Finally, our findings suggest that prior studies demonstrating the positive effect of the entrepreneur's social capital on firm performance (e.g., Dahl and Sorenson 2009, Michelacci and Silva 2007) may underestimate the magnitude of this effect. Social capital is generated by the entrepreneur's family and friends, but as Dahl and Sorenson (2012) suggest, the presence of family and friends may also make locations attractive for nonfinancial reasons. Given that previous studies have largely captured the net of the positive impact of the social capital and the negative impact of the personal location attractiveness, an absolute effect of the social capital may be larger than anticipated from those studies.

Acknowledgments

Appendix

To determine whether a firm has an owner-manager, we looked for a match between the names of the firm owners (with at least a 20% share) and the name of the top manager in 2,001 firms that report their owners' and managers' names. The remaining firms report only managers' names and owners' nationalities but not the owners' names.[8] However, we have observed that in the firms with complete information, 99.2% of hired managers have typical Russian names, whereas 99.0% of owner-managers have non-Russian names. Thus, it appears that a hired manager is almost always Russian.

To determine management status of firms with missing owners' names, we checked whether a firm manager had a Russian name or a foreign name typical of the nationality of its owner. If a firm manager had a typical Russian name, we concluded that the firm had a hired manager. If the firm manager had a foreign name typical of the nationality of the firm's owner, we concluded that the firm had an owner-manager. We validated this procedure on the subsample of firms with complete ownership and management information. The management status determined under this procedure matched the actual status in 87% of cases.[9]

We used the above procedure to determined management status for 2,474 firms in our sample. To be conservative, we dropped firms from the former Soviet Union republics with missing owners' names because their owners could have typical Russian names.

To make sure that this sample construction procedure did not bias our findings, we used it to estimate the probability of having an owner-manager on a subsample that excluded firms with missing owners' names. The findings remained very similar to the main sample (see Table A.1).

BvD provides up to 10 years of financial data but only current ownership and management information. Fortunately, we were able to download ownership and management information from all existing historic versions of the Ruslana database, resulting in up to five years of ownership and management data for each firm. For the years when ownership and management data were not yet available, we used the closest available management status.[10] We have several reasons to believe that this procedure should not introduce any significant bias in our results. In the subsample with complete historic information, we did not observe any changes of the management status, from an owner-manager to a hired manager or vice versa (even though we observed successions among hired managers). Start-up companies seem unlikely to change management status so early in life. Indeed, previous literature suggests that entrepreneurial firms start switching manager type as they mature and undergo an initial public offering, acquisition, or major financing round (e.g., Wasserman 2003). Furthermore, when we limited our sample to the 2008 observation year, where we had an actual management status for all firms, the results were similar to our main findings (see Table A.1).

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[8] On average, firms with missing owners' names are a little smaller and older but, after controlling for observed firm characteristics, have the same profitability as firms with complete information.

[9] Among the false cases, half were wrongfully identified as owner-managers, and half were wrongfully identified as hired managers.

[10] As a result, 55% of the firm-year observations have the actual management status; for 15% of observations the management status is lagged by one year, and for 30% of observations the status is lagged by two years or longer.

Table A.1   Sample Construction Tests

	(1)	(2)	(3)	(4)
Dependent variable:	Owner-manager	Owner-manager	Owner-manager	OROA
Variables:	Excluding firms with missing owners' names		Year 2008 only	
Model:	Probit	Probit diff-in-diffs	Probit	OLS
Ln(*foreign workers*)	0.083**		0.439***	−0.001
	(0.040)		(0.067)	(0.013)
Color revolution		0.232**		
		(0.094)		
Owner-manager				0.190***
				(0.062)
Owner-manager × Ln(*foreign workers*)				−0.054**
				(0.016)
Ln(*GDP*)	−0.143***	−0.057	0.341***	−0.002
	(0.053)	(0.255)	(0.067)	(0.010)
Ln(*population*)	0.079	0.258	−0.876***	0.003
	(0.058)	(2.674)	(0.128)	(0.010)
Ln(*assets*)	−0.061***	−0.076***	−0.037	0.015***
	(0.017)	(0.014)	(0.106)	(0.004)
Ln(*long debt*)	−0.018	−0.006	−0.053	−0.007***
	(0.012)	(0.007)	(0.071)	(0.001)
Shareholders	−0.174	−0.122		−0.019
	(0.123)	(0.075)		(0.024)
Non-CIS	0.324**			−0.031
	(0.151)			(0.027)
Constant	1.130***	1.660	1.235	−0.039
	(0.286)	(2.147)	(1.177)	(0.093)
Dummies	Date	Date and country	Date	Date
R^2/Pseudo R^2	0.033	0.120	0.205	0.057
N	937	1,900	40	686

Notes. Sample: Sample is limited to firms with complete ownership and management information, from countries with work migration data. Model 3 includes firms founded in 2008. Model 4 includes all firms observed in 2008. In Model 3, shareholder variable is dropped because all firms have only one shareholder. Robust standard errors are clustered on country.

    *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Table A.2   Distribution of Firms by Management Type and Country of Origin

Country	Hired manager	Owner-manager	Total
Afghanistan	4	51	55
Algeria	2	2	4
Andorra	1	0	1
Anguilla	1	0	1
Argentina	1	0	1
Armenia	8	17	25
Australia	2	3	5
Austria	16	7	23
Azerbaijan	10	24	34
Bangladesh	1	17	18
Belarus	160	359	519
Belgium	8	3	11
Bosnia and Herzegovina	4	12	16
Brazil	1	0	1
Bulgaria	28	27	55
Burkina Faso	0	1	1
Cambodia	2	0	2
Canada	16	8	24
Cape Verde	3	2	5
Central African Republic	0	1	1

Table A.2   (Continued)

Country	Hired manager	Owner-manager	Total
Chile	1	1	2
China	219	1,051	1,270
Colombia	3	1	4
Croatia	2	7	9
Cuba	1	1	2
Cyprus	2	1	3
Czech Republic	16	9	25
Denmark	7	3	10
Dominica	1	0	1
Ecuador	2	1	3
Egypt	1	0	1
Equatorial Guinea	0	1	1
Estonia	31	12	43
Finland	31	22	53
France	30	17	47
Georgia	4	10	14
Germany	98	48	146
Greece	17	10	27
Guatemala	0	1	1
Hungary	5	9	14
India	62	147	209

Table A.2   (Continued)

Country	Hired manager	Owner-manager	Total
Indonesia	6	1	7
Iran	11	76	87
Iraq	1	1	2
Ireland	1	2	3
Israel	47	12	59
Italy	59	40	99
Japan	8	5	13
Jordan	0	1	1
Kazakhstan	18	19	37
Kiribati	3	0	3
Kyrgyzstan	2	9	11
Latvia	48	16	64
Lebanon	6	3	9
Libyan Arab Jamahiriya	1	0	1
Lithuania	26	14	40
Luxembourg	7	2	9
Macedonia	3	27	30
Moldova	10	25	35
Monaco	1	0	1
Mongolia	1	7	8
Morocco	1	0	1
Nepal	3	3	6
Netherlands	8	7	15
Nigeria	0	2	2
North Korea	30	26	56
Norway	0	2	2
Pakistan	1	19	20
Panama	2	0	2
Philippines	0	1	1
Poland	39	27	66
Portugal	0	1	1
Romania	2	0	2
San Marino	1	0	1
Serbia	10	39	49
Seychelles	0	2	2
Singapore	0	1	1
Slovakia	5	4	9
Slovenia	4	4	8
South Africa	1	0	1
South Korea	25	33	58
Spain	6	6	12
Sri Lanka	2	2	4
Sweden	15	6	21
Switzerland	12	21	33
Syrian Arab Republic	3	3	6
Taiwan	1	4	5
Tajikistan	8	13	21
Turkey	128	302	430
Ukraine	79	92	171
United Arab Emirates	1	0	1
United Kingdom	19	11	30
United States	84	21	105
Uzbekistan	16	24	40
Vietnam	30	53	83
Virgin Islands	3	1	4
Total	1,599	2,876	4,475

Table A.3   Distribution of Firms by Country of Origin, Manager Type, and Average Annual Number of Foreign Workers in Russia (Thousand People)

Country	Hired manager	Owner-manager	Total	Average number of foreign workers per year (1,000)
Armenia	8	17	25	27.8
Azerbaijan	10	24	34	20.4
Belarus	5	11	16	15.1
China	219	1,050	1,269	109.1
Estonia	4	3	7	1.5
Georgia	4	10	14	4.9
Kazakhstan	18	19	37	4.8
Kyrgyzstan	2	9	11	33.4
Lithuania	5	2	7	2.6
Moldova	10	25	35	38.8
North Korea	30	26	56	17.6
Poland	7	5	12	3.3
Serbia	1	5	6	10.6
Tajikistan	8	13	21	79.1
Turkey	128	301	429	58.1
Ukraine	79	92	171	121.1
United States	84	21	105	2.7
Uzbekistan	16	23	39	110.8
Vietnam	30	48	78	48.5
Total	668	1,704	2,372	

Note. There is a small discrepancy in the numbers in this table and in Table A.2 because some countries are missing work migration data for some observation years, which resulted in the drop of firms founded in the years with missing work migration data.

Table A.4   Countries with Color Revolutions and Similar Civil Movements

Country	Color revolution year
Azerbaijan	2005
Belarus	2005
Georgia	2003
Kyrgyzstan	2005
Lebanon	2005
Moldova	2005
Mongolia	2005
Pakistan	2007
Serbia	2000
Ukraine	2004

Table A.5   The Effects of a Color Revolution on Immigration, GDP, and Unemployment

Dependent variable:	(1) Ln(immigration to OECD)	(2) Ln(immigration to Canada)	(3) Ln(unemployment)	(4) Ln(GDP)
Variables				
Color revolution	0.182*	0.581***	−0.006	0.110
	(0.104)	(0.190)	(0.103)	(0.107)
Ln(GDP)	−0.086	−0.091	0.042	
	(0.141)	(0.185)	(0.186)	
Ln(population)	0.616	1.955**	1.982**	−0.552
	(0.681)	(0.771)	(0.850)	(0.343)
Constant	0.762	−5.373**	0.391	4.484***
	(1.704)	(2.344)	(2.865)	(0.782)
Year dummies	Yes	Yes	Yes	Yes
Country fixed effect	Yes	Yes	Yes	Yes
Within R^2	0.341	0.165	0.098	0.715
N	849	1,053	786	1,539

Notes. Level of observation is country-year. Robust standard errors clustered on country are in parentheses.
*, **, and *** denote significance at 10%, 5%, and 1% respectively.

References

Adams RB, Almeida H, Ferreira D (2005) Powerful CEOs and their impact on corporate performance. *Rev. Financial Stud.* 18(4): 1408–1432.

Alcacer J, Chung W (2007) Location strategies and knowledge spillovers. *Management Sci.* 53(5):760–776.

Aldrich H, Waldinger R (1990) Ethnicity and entrepreneurship. *Annual Rev. Sociol.* 16:11–135.

Anderson RC, Reeb DM (2003) Founding-family ownership and firm performance: Evidence from the S&P 500. *J. Finance* 58(3): 1301–1328.

Belenzon S, Berkovitz T, Rios LA (2013) Capital markets and firm organization: How financial development shapes European corporate groups. *Management Sci.* 59(6): 1326–1343.

Benz M, Frey B (2008) The value of doing what you like: Evidence from the self-employed in 23 countries. *J. Econom. Behav. Organ.* 68(3–4):445–455.

Bertrand M (2009) CEOs. *Annual Rev. Econom.* 1(1):121–150.

Blanchflower DG, Oswald AJ (1998) What makes an entrepreneur? *J. Labor Econom.* 16(1):26–60.

Bloom N, Kretschmer T, Van Reenen J (2011) Are family-friendly workplace practices a valuable firm resource? *Strategic Management J.* 32:343–367.

Caves RE (1996) *Multinational Enterprise and Economic Analysis* (Cambridge University Press, Cambridge).

Chen G, Hambrick DC (2012) CEO replacement in turnaround situations: Executive (mis)fit and its performance implications. *Organ. Sci.* 23(1):225–243.

Coughlin C, Terza J, Arromdee V (1991) State characteristics and the location of foreign direct-investment within the United States. *Rev. Econom. Statist.* 73(4):675–683.

Dahl MS, Sorenson O (2009) The embedded entrepreneur. *Eur. Management Rev.* 6(3):172–181.

Dahl MS, Sorenson O (2010) The social attachment to place. *Soc. Forces* 89(2):633–658.

Dahl MS, Sorenson O (2012) Home sweet home: Entrepreneurs' location choices and the performance of their ventures. *Management Sci.* 58:1059–1071.

Figueiredo O, Guimaraes P, Woodward D (2002) Home-field advantage: Location decisions of Portuguese entrepreneurs. *J. Urban Econom.* 52:341–361.

Gimeno J, Folta TB, Cooper AC, Woo CY (1997) Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Admin. Sci. Quart.* 42:750–753.

Gomez-Mejia LR, Haynes KT, Nunez-Nickel M, Jacobson KJL, Moyano-Fuentes J (2007) Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Admin. Sci. Quart.* 52(1):106–137.

Graves PE (1980) Migration and climate. *J. Regional Sci.* 20(2): 227–237.

Hagelskamp C, Suarez-Orozco C, Hughes D (2010) Migrating to opportunities: How family migration motivations shape academic trajectories among newcomer immigrant youth. *J. Soc. Issues* 66(4):717–739.

Hamilton BH (2000) Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *J. Political Econom.* 108(3):604–631.

Kalnins A, Chung W (2004) Resource-seeking agglomeration: A test of market entry in the lodging industry. *Strategic Management J.* 25(7):689–699.

Kalnins A, Chung W (2006) Social capital, geography, and survival: Gujarati immigrant entrepreneurs in the U.S. lodging industry. *Management Sci.* 52(2):233–247.

Krugman PR, Obstfeld M (1997) *International Economics: Theory and Policy* (Addison-Wesley, Reading, MA).

Kulchina E (2014) Media coverage and location choice. *Strategic Management J.* 35(4):596–605.

Michelacci C, Silva O (2007) Why so many local entrepreneurs? *Rev. Econom. Statist.* 89(4):615–633.

Miller D, Le Breton-Miller I, Lester RH (2013) Family firm governance, strategic conformity, and performance: Institutional vs. strategic perspectives. *Organ. Sci.* 24(1):189–209.

Moskowitz TJ, Vissing-Jorgensen AV (2002) The returns to entrepreneurial investment: A private equity premium puzzle? *Amer. Econom. Rev.* 92(4):745–778.

Nanda R, Sorensen JB (2010) Workplace peers and entrepreneurship. *Management Sci.* 56(7):1116–1126.

Parwada JT (2008) The genesis of home bias? The location and portfolio choices of investment company start-ups. *J. Financial Quant. Anal.* 43:245–266.

Ritchey PN (1976) Explanations of migration. *Annual Rev. Sociol.* 2:363–404.

Santarelli E, Vivarelli M (2007) Entrepreneurship and the process of firms' entry, survival and growth. *Indust. Corporate Change* 16(3):455–488.

Saxenian A, Wadhwa V, Rissing B, Gereffi G (2007) America's new immigrant entrepreneurs. Working paper, Engineering School, Duke University, Durham, NC.

Scott DM, Coomes PA, Izyumov AI (2005) The location choice of employment-based immigrants among U.S. metro areas. *J. Regional Sci.* 45(1):113–145.

Sorenson O, Audia PG (2000) The social structure of entrepreneurial activity: Geographic concentration of footwear production in the United States, 1940–1989. *Amer. J. Sociol.* 106(2):424–462.

Wasserman N (2003) Founder-CEO succession and the paradox of entrepreneurial success. *Organ. Sci.* 14(2):149–172.

Wulf J, Singh H (2011) How do acquirers retain successful target CEOs? The role of governance. *Management Sci.* 57(12): 2101–2114.