# DO FOREIGN ENTREPRENEURS BENEFIT THEIR FIRMS AS MANAGERS?*

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## Abstract

The entrepreneurship literature has extensively studied an individual's decision to found a new venture, but it has little to say about the individual's choice to operate this venture personally or hire an agent. This decision is particularly challenging for foreign entrepreneurs, who, in addition to traditional factors, such as agency costs and personal preferences, need to take into consideration the benefits and liabilities of foreignness. Using novel data on foreign entrepreneurial firms and instrumenting for the owner-manager choice with a visa policy change, we find that managing foreign entrepreneurs significantly improve firm performance. Our results further suggest that foreign owner-managers reduce operating costs but have no effect on the firm's productivity and growth.

**Keywords:** choice of manager, immigrant entrepreneurs, firm performance, owner-manager, founder-CEO

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## Introduction

For nearly a century, the question of why people become entrepreneurs has been an issue of major concern in a variety of fields (e.g., Blanchflower and Oswald, 1998; Hamilton, 2000; Klepper, 2007; Nanda and Sorensen, 2010; Schumpeter, 1949; Sorenson and Audia, 2000). However, the literature that studies transition to entrepreneurship has largely mixed together two important issues—having an idea for a new business and being the right person to operate this venture. Up until recently, researchers have largely believed that entrepreneurs operate their ventures personally (e.g., Berglann *et al.*, 2011; Hamilton, 2000; Nanda and Sorensen, 2010). However, it is not clear from either a theoretical or an empirical standpoint why this should be the case (e.g., Chen and Thompson, 2015). Indeed, a founder may not always be the best person to manage his or her business (e.g., Wasserman, 2016). Entrepreneurs are being blamed for placing personal motives ahead of financial returns and having limited expertise (e.g., Gomez-Mejia *et al.*, 2007; Chen and Thompson, 2015). Such poor motives and abilities of entrepreneur-managers may perhaps be one reason why the majority of new establishments die in the first five years.

The choice of whether to operate a firm personally or hire a manager is even more challenging for foreign entrepreneurs, who found ventures outside of their native countries. In addition to general issues common to all entrepreneurs, they have to take into consideration the liabilities of being a foreigner. In this paper we examine how foreign entrepreneurs affect firm performance when they choose to manage their ventures personally as opposed to hiring a local manager.

Fueled by waves of international migration, foreign entrepreneurship has grown into a very significant phenomenon, such that foreign-born individuals now constitute almost a quarter

of all entrepreneurs in the U.S., employ almost five million people, and earn over half a billion U.S. dollars in revenue annually (Fiscal Policy Institute, 2012). A similar situation is observed in Europe, where foreign entrepreneurs, for example, own over 165,000 businesses in Italy (*The Financial Times*, 2009), 464,527 firms in London, UK (Centre for Entrepreneurs and DueDil, 2014), and 18 percent of small businesses in Sweden (Andersson and Wadensjo, 2009). Moreover, countries compete for new foreign entrepreneurs. For example, Spain and Chile put significant effort into attracting foreign founders in the hope of revitalizing their economies *(The New York Times*, 2014).

Despite the influential role of foreign entrepreneurs, we still have limited understanding of the behavior of their ventures. The related academic literature focuses primarily on the entrepreneurs' founding choice (e.g., Portes, Guarnizo and Haller 2002; Saxenian *et al.*, 2007), whereas many other strategic decisions accompanying this choice, such the choice of firm manager, remain largely unexplored. Given the importance of foreign entrepreneurship in the global economy, we believe that this decision and its consequences to firm performance should also be of interest to a broader academic and business audience.

From the theoretical standpoint, the effect of foreign owner-managers on firm performance is unclear. Although owner-managers may have higher effort incentives relative to hired managers (Jensen and Meckling, 1976), entrepreneur-managers may hurt their firms by placing financial benefits below nonfinancial objectives (Benz and Frey, 2008; Blanchflower and Oswald, 1998). It is believed that entrepreneurs are often driven by their personal non-pecuniary motives, such as a sense of control, flexible work hours, or preferred location (Dahl and Sorenson, 2012; Benz and Frey, 2008; Blanchflower and Oswald, 1998; Hamilton, 2000; Moskowitz and Vissing-Jorgensen, 2002; Wasserman, 2016). In order to retain such private

benefits, entrepreneurs may make strategic choices that would negatively affect firm performance (e.g., Dahl and Sorenson, 2012; Hamilton, 2000; Moskowitz and Vissing-Jorgensen, 2002). Foreign entrepreneurs, for example, may become managers if this allows them to relocate and live in an attractive country (Kulchina, 2015a). Furthermore, the desire to preserve power may lead founder-CEOs to having worse operating practices than those of professional managers (Bennett, Lawrence, and Sadun, 2014). The situation with foreign owner-managers is even less clear, since international business literature suggests that their "liability of foreignness" (Zaheer and Mosakowski, 1997) may further decrease their value relative to that of local managers. It is generally suggested, for example, that multinational firms hire local managers for their subsidiaries to mitigate this problem (e.g., Berger, Choi, and Kim, 2011; Mezias, 2002).

To examine how foreign entrepreneurs affect firm performance when they choose to manage their firms personally, we exploit a unique dataset containing rich information on foreign entrepreneurial firms in Russia between 1997 and 2008. The other data sources used in entrepreneurship research often focus on self-employed individuals and owner-managers, thereby omitting entrepreneurial start-ups with hired managers (e.g., Berglann *et al.*, 2011; Nanda and Sorensen, 2010). Our dataset includes both types of entrepreneurial start-ups and allows us to determine whether an entrepreneur manages a firm personally or hires a local agent. To address the critical endogeneity issue of the manager choice, we use a visa policy change in Russia that arguably provides exogenous variation in the CEO assignment.

We find that the manager type strongly affects the performance of a foreign entrepreneurial firm. In particular, when foreign entrepreneurs choose to manage their firms personally, they make a significant contribution to firm performance. We also find that foreign

entrepreneurs primarily reduce costs, but do not increase firms' revenue or revenue growth. Moreover, our results provide evidence consistent with three potential mechanisms underlying such cost reduction: reduced agency costs, more direct access to cost-efficient home-country resources, and superior management skills acquired abroad.

This paper makes several important contributions to the literature: First, it speaks to the research on the strategies of entrepreneurial businesses and family firms (e.g., Amore, Garofalo, and Minichilli, 2014; Kalnins and Chung, 2006; Le Breton-Miller, Miller, and Lester, 2011) by providing a more nuanced understanding of the important and growing community of foreign entrepreneurs. Second, our findings have more general implications that go beyond the studied setting. Our work is one of the first to show that the choice between an owner-manager and a hired manager has a significant impact on the performance of start-ups and young firms. The evidence for the underlying mechanisms also has more general implications to domestic start-ups, where owner-managers may also benefit their firms by reducing agency costs and having superior management skills.

Additionally, our paper speaks to the growing research on how manager selection impacts firm performance (e.g., Anderson and Reeb, 2003; Bertrand and Schoar, 2003; Mackey, 2008; Miller, Minichilli, and Corbetta, 2013) by extending this literature to multinational ventures and foreign managers. While prior studies place strong emphasis on the liabilities of being an outsider and a foreigner (e.g., Dahl and Sorenson, 2012; Zaheer and Mosakowski, 1997), our results suggest that non-local founder-managers are not always a liability. These results thereby contribute to the growing literature on the benefits of foreignness (e.g., Nachum, 2003; Perez-Batres and Eden, 2008; Siegel, Pyun, Cheon, 2014).

Finally, our findings speak to the research on CEO replacement and misfit in start-ups (e.g., Chen and Hambrick, 2012; Nelson, 2003; Wasserman, 2003). Founder-CEO replacement is common during IPOs and acquisitions of young entrepreneurial firms as well as at major financing events and product development completion. Our findings demonstrate that an exogenous assignment of a hired manger in place of a founder-manager may have a destructive effect on firm performance and point to the need for further investigation of the benefits and costs of such replacement.

**Theoretical Background**

Foreign entrepreneurs are people who found firms outside of their native countries, such as an American entrepreneur who opens a fashion-photography shop in Japan, an Italian chef starting a pizzeria in Canada, or a Vietnamese founder of a software firm in the U.K. Thanks to advanced communication and transportation technologies, opening a firm abroad has become easier and no longer necessarily requires an entrepreneur to live near the operating facilities. As a result, some foreign entrepreneurs choose to be non-managing owners and live at a distance from their firms, extend operations to multiple countries, or use entrepreneurship as a supplement to their main employment at home or abroad (e.g., Oviatt and McDougall, 1994). In such a case, foreign entrepreneurs typically hire professional host-country managers to operate their firms. Local managers are valued for the local knowledge and connections. Moreover, compared to foreign hired managers, local managers are more likely to accept employment in start-ups because they do not need to relocate and have lower switching costs. Below, we draw on the prior research to explore how the choice between managing a firm personally and hiring a local manager may affect the performance of foreign entrepreneurial firms.

Recent strategic entrepreneurship literature has paid particular attention to the role that founders play in their firms (e.g., Anderson and Reeb, 2003; Burton, Anderson, and Aldrich, 2009; Eesley, Hsu, and Roberts, 2014; Roach and Sauermann, 2015; Wasserman, 2016). Some of these studies have argued that owner-managers can benefit their firms by reducing agency costs (e.g., Anderson and Reeb, 2003; Villalonga and Amit, 2006). Agency costs arise when hired managers do not act in the best interest of the firms because they do not receive significant shares of the firms' profits. Thus, compared to owner-managers, hired managers are more likely to decrease work effort, cheat, or consume perquisites (e.g., Jensen and Meckling, 1976), whereas the monitoring of hired managers may be difficult and costly.

We expect that, similar to domestic entrepreneurs, foreign founder-managers may benefit their firms by reducing agency costs. Indeed, the agency problem in foreign firms may be even greater than for domestic entrepreneurs because monitoring hired managers from a distance, in a different cultural environment, and resolving conflicts in an unfamiliar court system is costly. Our interviews with foreign entrepreneurs, for example, revealed that they take manager choice very seriously and are strongly concerned with potential shirking of hired managers.

> *We [two co-founders] had to think hard whether to manage the business personally or hire a Russian manager. A Russian manager may know the environment better but we were concerned that he would cheat us and we would not be able to catch this.*

We also expect that foreign owner-managers may be able to further reduce firms' operating costs and improve productivity by getting access to unique resources and capabilities. Recent transnational entrepreneurship studies demonstrate that modern foreign entrepreneurs are able to maintain business connection with their home countries and local ethnic communities (e.g., Portes *et al.*, 2002). When needed, they can leverage these networks to obtain superior knowledge and resources (e.g., Portes *et al.*, 2002; Zimmer and Aldrich, 1987). (Foreign

managers are also able to identify and take advantage of valuable resources that are underutilized by local firms (Siegel, Pyun, and Cheon, 2014). Siegel, Pyun and Cheon (2014), for example, demonstrate that foreign managers are able to hire underpriced, yet well qualified, groups of workers that are overlooked by local managers due to social schisms.

However, not all foreign firms are equally likely to have preferential access to foreign and ethnic networks. Firms with foreign owner-managers seem to be more likely to have such an advantage. For example, Kulchina (2015b) demonstrates that compared to local managers, foreign entrepreneur-managers have more direct access to foreign labor, which is often less expensive that local employees. The quotation below taken from an interview with entrepreneurs provides further anecdotal evidence.

> *Before the crisis, our warehouse staff had a 20,000-ruble salary. When the crisis hit, in November-December we were no longer able to pay them and sent part of our staff on leave… Foreign workers from Tajikistan and Uzbekistan, who we hired, agreed to work for 15 thousand* (Tyuryukanova and Florinskaya, 2012)

Nachum (2003) and Perez-Batres and Eden (2008) also argue that foreign firms may be able to compensate for the liability of foreignness with their firm-specific capabilities developed in home countries. Similarly, some foreign owner-managers may have better management skills acquired through business education and exposure to superior management practices in their home countries.

Altogether, the above arguments would suggest that:

*H1a: Managing foreign entrepreneurs positively affect firm performance relative to hired local managers.*

Although an entrepreneur-manager's international connections may benefit the firm, the entrepreneur's lack of local knowledge and networks may become a disadvantage relative to a local manager. The international business literature generally suggests that foreign entrepreneurs

are likely to suffer from a "liability of foreignness"—a competitive disadvantage resulting from unfamiliarity with local culture and market and a lack of local networks (Zaheer and Mosakowski, 1997). The "liability of foreignness" implies lower performance of foreign entrepreneur-managers compared to hired locals, as foreign entrepreneur-managers have limited local knowledge and networks and may have poor language skills or a management style not well suited for the host country (e.g., Dahl and Sorenson, 2012; Zaheer and Mosakowski, 1997). It is generally suggested that multinational firms hire local managers for their foreign subsidiaries to mitigate this problem (e.g., Berger *et al.*, 2011; Mezias, 2002).

It may seem logical that foreign entrepreneurs would consider all the above effects of owner-management and only manage their overseas ventures when this is a value-maximizing choice. However, this is not necessarily the case. There is strong evidence that entrepreneurs may become managers for reasons other than maximizing firm performance or make strategic choices that would be misaligned with profit maximization (e.g., Benz and Frey, 2008; Blanchflower and Oswald, 1998; Hamilton, 2000; Moskowitz and Vissing-Jorgensen, 2002; Wasserman, 2016). Existing literature suggests that entrepreneurs are often driven by their personal nonfinancial benefits, such as having control over their firms, locating in personally attractive places, and having flexible work hours (e.g., Dahl and Sorenson, 2012; Hamilton, 2000; Moskowitz and Vissing-Jorgensen, 2002). For example, Gomez-Mejia *et al.* (2007) demonstrate that entrepreneurs make strategic choices that preserve their families' socioemotional wealth but greatly increase firms' performance hazard. Bennett *et al.* (2014) show that founder-CEOs have worse operating practices than hired managers, presumably because they stick to power-preserving practices. Additional indirect evidence is provided by studies showing that outside investors tend to replace owner-managers with professional

managers at times of major strategic events, such as the completion of product development, new rounds of financing, and IPO (e.g., Chang and Shim, 2014; Wasserman, 2003). In line with the above evidence, one may expect that foreign entrepreneurs may operate their firms even when they are not the best managers or make strategic decisions that are not best for the firms but preserve owners' nonpecuniary benefits. For example, foreign entrepreneurs may become firm managers in order to live in personally attractive regions and may be willing to substitute some firm profit for doing so (Kulchina, 2015a).

Overall, the negative impacts of the owner-managers' liability of foreignness and nonfinancial motives may offset the potential positive impacts of their superior work-effort incentives and foreign connections, suggesting an alternative hypothesis:

*H1b: Managing foreign entrepreneurs negatively affect firm performance relative to hired local managers.*

To summarize, prior literature suggests that foreign owner-managers may have positive and negative impacts on firm performance. However, the literature does not provide conclusive indication of the magnitudes of the underlying positive and negative effects in foreign start-ups. Thus, whether foreign entrepreneurs benefit or hurt their firms when they choose to manage them personally becomes an empirical question.

**Data**

We examine the effect of foreign owner-managers on firm performance using a dataset of foreign entrepreneurial start-up firms in Russia between 1997 and 2008. The data come from the Ruslana database—a part of the Amadeus database by Bureau van Dijk, which has been intensively used in the academic research (e.g., Bloom, Kretschmer, and Van Reenen, 2011;

Kulchina, 2015b). The data are assembled from the annual reports that firms file to Russian government agencies. This dataset has several unique features important for our analyses. First, it covers all firms operating in Russia, including private firms owned by entrepreneurs, which allows examining young entrepreneurial ventures. Second, Ruslana provides firms' ownership and top-management information. We match owners' and top-managers' names to determine whether the firm has an owner-manager or a hired manager. Finally, the database reports reliable annual financial information, which we use to evaluate firm performance. For the purpose of this study, we focus on the part of this database that represents foreign entrepreneurs. Similar to Saxenian *et al.* (2007), we define **a foreign entrepreneurial firm** as a firm owned directly by one or several non-Russian individuals.[1] (Thereby, we do not include Russian entrepreneurs or the subsidiaries of multinational firms.)

We determine that a firm has a foreign **owner-manager** when one of its foreign owners is also a CEO. Owners are defined as shareholders with at least 20 percent of firm shares, based on the most conservative ownership threshold in the literature (e.g., Villalonga and Amit, 2006).[2] The ***owner-manager*** variable is a dummy variable that equals 1 when a firm has an owner-manager and 0 when a firm has a hired CEO. All the hired CEOs in our sample are Russian.[3]

**Sample:** To construct our sample, we start with the entire population of wholly owned foreign firms that operated in Russia for at least one year between 1997 and 2008. Based on our definition of a foreign entrepreneurial firm, we limit our dataset to a subsample of businesses that are owned solely by non-Russian individuals, thereby excluding MNC subsidiaries and ventures

[1] Given that Russia was virtually closed for immigration until 1991 and still does not have an open immigration system, we expect that the number of immigrant entrepreneurs with Russian citizenship is very small. Indeed, there are no cases in our dataset of entrepreneurs changing their status from foreign to domestic.
[2] Empirically, 20 percent is also the smallest share owned by any firm CEO in the dataset. Findings are, however, robust to increasing the ownership threshold to 51 percent or 100 percent.
[3] While theoretically a hired CEO could be foreign, we do not observe any such cases in our dataset.

owned jointly with Russian entrepreneurs. After further excluding firms for which we were unable to identify management status due to incomplete data, observations with missing information, and outliers,[4] we have a final sample of 16,581 firm-year observations coming from 5,502 firms: 53 percent of the firms have main operations in the trade sector (retail and wholesale), 25 percent in services, 10 percent in manufacturing, 8 percent in construction, and 4 percent in other industries. While foreign entrepreneurs in our sample come from over 100 foreign countries, the majority of founders are from China (27% of firms), Belarus (11%), Turkey (10%), and India (5%). Foreign entrepreneurs manage 63 percent of firms, and hired Russian managers operate the remaining 37 percent of ventures.[5] The manager type remains constant over time. Since we focus on entrepreneurial start-ups, at the time of observation the majority of these firms are relatively young (mean age is less than 3 years) and relatively small (mean size is 24 employees).[6] Approximately 10 percent of founded start-ups die with each additional year after entry.[7]

Following prior research (e.g., Anderson and Reeb, 2003), we measure **firm performance** as the operating return on assets (OROA), i.e., the ratio of operating profit to the book value of assets.[8] We also include a range of **control variables** that may influence both the choice of manager and firm performance (e.g., Anderson and Reeb, 2003; Villalonga and Amit, 2006). These variables include the number of shareholders, and the natural logarithms of assets,

[4] Firms with missing and complete data are similar on observable characteristics with the exception of nationality: firms with missing information are more likely to come from the former Soviet Union republics.
[5] Theoretically, owners may sometimes be involved with a firm at another management position or at the board of directors. However, the firms in our sample do not have boards of directors and rarely have other top-level managers. This is consistent with prior studies that demonstrate that family firms reluctantly install boards of directors (e.g., Voordeckers, Gils, and Heuvel, 2007). Low-level managers are not reported, but based on our interviews with foreign entrepreneurs, it is unlikely that entrepreneurs work in their firms as low-level managers.
[6] Age ranges between 0 and 16 years, where 0 is the year of entry. Size ranges between 1 and 1,130 employees.
[7] This is a typical death rate for young small businesses (e.g., Small Business Administration, 2014).
[8] All monetary values are in nominal Russian rubles. Inflation effect is captured by the year dummy variables in regression models. The results are robust to using another profitability measure, return on assets (ROA).

revenue, and long debt. We include a dummy variable (*non-CIS*) for countries outside of the Commonwealth of Independent States (CIS), which includes the majority of the former Soviet republics. We also account for the year of observation and the date of founding.

The definitions, sample statistics, and major correlations appear in Table 1. Table 2 compares key characteristics of firms with owner-managers and those with hired managers. Firms managed by foreign entrepreneurs are smaller, with lower assets, revenue, costs, and debt. They also have fewer shareholders and employees. Their OROA is slightly smaller than that of firms with hired local managers, but the difference is small and not statistically significant since its 95 percent confidence interval includes zero.

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Insert Table 1 about here
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Insert Table 2 about here
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**Empirical Analysis**

Our empirical analysis consists of four main parts. In the first part, we compare average performance of firms with foreign owner-managers and hired local managers in a descriptive baseline model that accounts for the observed firm characteristics. In the second part, we address endogeneity of the entrepreneur's choice to become a top manager by using an instrument for the owner-management choice. To further explore the underlying sources of the observed variation, we also examine the impacts of foreign owner-managers on operating costs, revenue, and revenue growth. Finally, we look for empirical evidence of the three potential mechanisms underlying foreign owner-managers' effect on their firms: reduced agency costs, access to home-country resources, and superior management skills acquired abroad.

**Baseline model**

We start with a baseline model, where we compare OROA of firms with foreign owner-managers and domestic hired manager while accounting for the observed firm characteristics. The model is shown in equation 1 and estimated by OLS.

$$OROA_{it} = \beta_0 + \beta_1 OM_i + \sum_{k=1}^{n} \beta_k Z_{kit} + D_i + Y_t + \varepsilon_{it} \quad , \qquad (1)$$

where the dependent variable is $OROA_{it}$, $i$ is the firm, $t$ is the year when performance is observed, $OM_i$ is the owner-manager dummy variable, $Z_{kit}$ are control variables, $D_i$ are dummy variables indicating the year when the firm was founded in Russia, $Y_t$ are the year of observation dummy variables, and $\varepsilon_{it}$ is an error term. Henceforth, standard errors are clustered on firm.

We find that once we account for the observed firm characteristics, firms with foreign owner-managers have a higher OROA than firms with hired local managers (see column 1 of Table 3). Coefficients for the control variables are generally as expected: Firms with higher revenue, smaller debt, and fewer shareholders tend to perform better. However, even with the inclusion of the comprehensive set of control variables, causal interpretation of the association between owner-management and firm performance is problematic because the owner-manager choice may be endogenous. Some unobserved characteristics of the owner or the firm may make the owner more likely to become a manager and simultaneously affect firm performance. For example, entrepreneurs may self-select into managing certain types of firms: they may manage better firms themselves or, alternatively, may hire managers for easier projects but personally manage more difficult start-ups that require more effort and attention. Also, entrepreneurs from poor countries may be more willing to move to Russia to manage their firms, but at the same time may have fewer start-up resources. Finally, if entrepreneurs choose the type of manager that

would create most value in the firm, the comparison of firms with optimal choices of owner-managers and hired managers may yield zero difference and does not tell us much about the value of foreign owner-managers in the firms that they choose to manage.

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Insert Table 3 about here
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We address the endogeneity concerns with an instrument for the owner-manager choice. Our instrument is the 2003 visa policy change that limited the ability of some entrepreneurs to manage their firms and thereby induced exogenous variation into the firm manager choice. We expect that this change is negatively correlated with the probability of having an owner-manager but is otherwise uncorrelated with firm performance. The next section describes this instrument in greater detail.

**Instrumenting for the choice of a foreign owner-manager: work visa quotas**

*Instrumental variable:* To manage a firm in Russia, a foreign entrepreneur needs a work permit from Russian authorities. Capital investment does not automatically justify a permit, so foreign entrepreneurs compete for permits with all other foreign workers and under the common rules.

Before 2003 the number of work permits was not limited and, in general, every foreign entrepreneur who wanted to manage a firm was able to do so, but in 2003 Russia introduced an annual cap on the number of work permits issued to the citizens of non-CIS countries (countries outside of the Commonwealth of Independent States and Turkmenistan).[9] Because of the quota,

[9] The Commonwealth of Independent States (CIS) includes all former Soviet republics except Georgia, Latvia, Lithuania, and Estonia, whereas non-CIS countries include all other countries. Ukraine is technically a participating state rather than a member, but we include it with other CIS countries, since work permit quotas did not apply to Ukrainian nationals. Henceforth, by saying non-CIS we mean non-CIS and Turkmenistan.

foreign entrepreneurs from non-CIS countries who started their firms in 2003 or later were less likely to receive work permits and manage their firms personally than pre-2003 entrants.

For the estimation, we are specifically interested in the period 2003–2006, when the number of work permits was limited for non-CIS citizens but still unlimited for CIS citizens.[10] The share of non-CIS firms with owner-managers decreased after the 2003 policy change, whereas the share of CIS firms with owner-managers remained relatively stable, as shown in Figure 1.[11]

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Insert Figure 1 about here
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To estimate the effect of the owner-manager on firm performance we use the 2SLS model, where we compare non-CIS and CIS firms that were founded before and after the visa policy change. The **instrument** is the interaction of the non-CIS country dummy variable and the post–policy change date of entry dummy variable. The ***non-CIS*** dummy variable equals 1 if firm owners come from non-CIS countries, and the ***post*** dummy variable equals 1 when the firm's founding year is 2003 or later. The sample is limited to firms founded before 2007, since in 2007 a separate quota was introduced for CIS countries. Below, we present the two-stage model estimated by 2SLS, where $non\text{-}CIS_i * post_i$ is an excluded instrument. We expect a negative correlation between *non-CIS*$_i$**post* and *owner-manager* dummy variable.

*First stage:* $OM_i = \beta_0 + \beta_1(non - CIS_i \times post_i) + \beta_2 non - CIS_i + \sum_{k=1}^{n} \beta_k Z_{kit} + D_i + Y_t + \varepsilon_{it}$, (2)

*Second stage:* $OROA_{it} = \beta_0 + \beta_1 \widehat{OM}_i + \beta_2 non - CIS_i + \sum_{k=1}^{n} \beta_k Z_{kit} + D_i + Y_t + \varepsilon_{it}$ , (3)

[10] In 2007, Russia also introduced a separate quota system for CIS citizens.

[11] The likelihood of getting a visa depends on the quota size (published) and work visa demand (unknown). That is why the share of owner-managed firms after the policy change is not uniform across years. For example, the share of owner-managed firms in 2003, when the quota was 530,000, is higher than in 2004, when the quota was 213,000.

where the dependent variable is $OROA_{it}$, $i$ is the firm, $t$ is the year when performance is observed, $OM_i$ is the owner-manager dummy variable, $non\text{-}CIS_i$ is a dummy variable that indicates that the firm is founded by entrepreneurs from a non-CIS country, $post_i$ is a dummy variable indicating that a firm was founded in 2003 or later.

Below, we provide further details on the quota system and its impact on the foreign entrepreneurs' ability to manage their firms personally.

*Details on the quota system:* Since Russia does not have an open immigration system, the majority of foreign nationals come to Russia as foreign workers. In the early 2000s, the Russian economy was experiencing economic growth, which made the country an attractive destination for potential foreign workers. The quota system was aimed at limiting international migration and balancing regional ethnic composition and labor market for Russian citizens. The quota was based on the combination of the projected foreign-labor demand and government immigration policy and created a work-permit shortage:[12] in 2008, for example, 10 Russian regions had already exhausted their quotas by May, according to Federal Migration Services (www.fms.ru).[13] The annual quota was divided between regions, but until 2008 there were no quota limits by job type or foreign countries, and thus applicants from all countries and for all positions had equal chances.

Importantly, when foreign entrepreneurs apply for work permits to manage their firms, they do it inside Russia immediately *after* firm registration, and thus the outcome of the

[12] Domestic and foreign firms that expected to hire foreign employees in year *t* should have reported their projected numbers to the local migration authorities in year *t-1*. The annual country quota in year *t* was determined based on the projected foreign employment numbers, economic situation, and government immigration policy. Then the quota was divided between regions. However, companies that had reported their projected foreign employment numbers in year *t-1* did not receive any preferential treatment in receiving work permits for their employees in year *t*. Thus, firms' incentives to report projected foreign employment numbers were low. Moreover, the projected numbers did not include the needs of newly established firms. This and the government immigration constraints typically created a high discrepancy between the quota and the actual visa demand on the shortage side.

application does not affect firm entry. Another important assumption required for this instrument to be valid is that work-permit assignment is independent from unobserved firm characteristics that affect performance. This appears to be the case: First, when the quota was exhausted, no one could get a work permit. Second, it is unlikely that entrepreneurs could time applications or manipulate the authorities when the quota was running low. Typically the quota usage data were not publicly available at the time of application, so the applicants did not know their chances of success. A region, for example, might have used its entire quota in spring but then receive additional work permits from the federal quota reserve in the fall. Applications could also be rejected early in the year if the country quota had not yet been divided between regions. Immigration officers were not required to follow any formal criteria in quota assignment and could reject applications on the basis of low quota at any time (even if the quota was still available), particularly if they saved permits for networked domestic firms. Besides, foreign entrepreneurs seemed to be unable to precisely time their permit applications, due to the unpredictable length of the firm registration process, which could take from a month to a year. They were also unlikely to significantly influence the decision due to the limited local connections.[14]

*Results of the 2SLS model:* The estimates of the 2SLS model with an instrument for the owner-manager choice are reported in columns 2 and 3 of Table 3. The coefficient for the instrument in the first stage is negative, as expected. Entrepreneurs from non-CIS countries are less likely to manage their firms after the visa policy change. The results of the second stage point to a positive effect of the owner-manager on firm performance in firms that foreign

[13] We use 2008 information because for 2003–2007 monthly work-permit usage was not available to public, which supports our expectation that foreigners applying for work visas had difficulty predicting their success chances.

entrepreneurs choose to manage personally. It may also be useful to get a sense of the monetary value of the observed effect. We calculated the size of the foreign owner-manager's effect for an owner-managed firm with a median value of assets (530,000 rubles, or approximately $18,782[15]). In such a firm, a foreign owner-manager increases annual firm profits by 153,170 rubles, or $5,423, relative to a hired Russian manager. In other words, our results suggest that foreign owner-managers bring positive net value to the firms that they choose to manage.

It is also useful to understand the underlying sources of the positive effect of a foreign owner-manager on firm performance. Owner-managers can increase firm profits by reducing operating costs, increasing the productivity of assets, or both. They could also use extra profit to grow their firms at a higher rate. In Table 4, we examine the impact of foreign owner-managers on the firm's operating costs and revenue.

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Insert Table 4 about here

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Our results suggest that foreign owner-managers are able to significantly reduce firms' operating costs, but have no impact on revenue and revenue growth. The magnitude of the owner-manager's impact on firm costs is such that for a firm with median operating costs, a foreign owner-manager would lead to 456,010 rubles or $16,286 in costs reduction.[16] For comparison, in 2005 an average annual wage of a small business manager in Russia was around $5,800. Our observation that owner-managers reduce costs, but do not significantly increase revenue or growth, is consistent with the proposed theoretical mechanisms. The ability of foreign

[14] In the Robustness Checks section, we discuss in greater detail these and other conditions required for instrument validity. Note that if entrepreneurs expecting higher benefits from being managers were more likely to get work permits after the policy change, this would suppress rather than inflate our coefficient for owner-manager.

[15] Small businesses typically have low value of assets, since they rent or lease their office space, machines, and equipment. Such assets most often are not reflected in the balance sheet. Moreover, in such a situation, even small deviations in absolute profit lead to high deviations in OROA due to the low asset base.

owner-managers to access cost-efficient home-country resources and reduce agency costs is likely to impact firm costs rather than directly affect revenue. This is also in line with the evidence from the prior literature that suggests that self-employed individuals do not necessarily aim at rapid business growth (e.g., Gimeno *et al.*, 1997).

Furthermore, in the theory section, we proposed three potential sources of cost reduction in firms with foreign owner-managers: diminished agency costs; superior access to cost efficient co-national resources, such as labor; and better management skills acquired in a home country. In our subsequent analysis, we look for empirical evidence that would be consistent with these three mechanisms. Agency literature argues that agency costs increase with the distance between an owner and a manager (e.g., Brickley and Dark, 1987; Lafontaine and Kalnins, 2013). Since non-managing foreign entrepreneurs in our sample primarily live in their home countries, we expect that a larger distance between the owner and the firm makes manager monitoring more difficult and costly. Replacing a hired manager with an owner-manager in a distant firm will eliminate monitoring costs and costs generated by shirking. Therefore, we propose that *a foreign owner-manager will be associated with a greater reduction of firm operating costs in firms for which the distance between the owner and the firm in larger*. We measure the natural logarithm of the distance between the city where the firm is located and the home country of the firm owners.[17] The model also includes home-country and host-region dummy variables.

We have also argued that foreign owner-managers may reduce operating costs by having access to cost-efficient resources in their home countries or in the local ethnic communities. In

[16] For a firm with mean cost of 16,317 rubles ($583), a foreign owner-manager will reduce costs by 13,337 rubles ($476). At one standard deviation above the mean (24,816,020 rubles or $886,287), a foreign owner-manager would lead to a 2,0282,543 ruble ($724,377) decrease in cost.

[17] For all firms from our sample, founders of the same firm share the same country. Ideally, we would like to measure entrepreneurs' location on a city or region level. However, such information is not available in the database. Our results are, however, robust to the exclusion of entrepreneurs from large countries, such as the U.S., Canada, China, Brazil, and some others.

line with prior work (e.g., Kulchina, 2015b), in our empirical test, we specifically focus on one resource—foreign labor. We expect that the ability to engage cost-efficient foreign resources would be more valuable when local competition for resources is high and less valuable when local competition is low. In line with this argument, we propose that *a foreign owner-manager will be associated with a smaller reduction of firm operating costs in firms located in Russian regions with high unemployment rates*. The measure of annual regional unemployment rate comes from the Russian Statistical Services website.[18]

Our final mechanism relates to the management skills of a foreign owner-manager. While we could not measure entrepreneurs' management skills directly, we expect that entrepreneurs coming from countries where firms on average use better management practices are likely to be better managers as they were exposed to better management practices during education and prior employment. We propose that *a foreign owner-manager will be associated with a greater reduction of firm operating costs when the owner-manager comes from a country with better management practices*. We use a measure of management practices developed by Bloom and Van Reenen (2007).[19] We calculate an average management practice score of firms in the entrepreneur's home country. Since there may be significant correlation between the quality of management practices and country wealth and development, we control for the home-country Gross Domestic Product (GDP) per capita as well as its interaction with the owner-manager dummy.

Our findings in Table 5 are consistent with our propositions: foreign owner-managers are associated with a greater reduction of firm operating costs when they come from countries with

[18] www.gks.ru
[19] The data on the management score came from http://worldmanagementsurvey.org. The management score averages the quality of management practices across four areas: operations management, performance monitoring, target setting, and human resource management.

better management practices as well as when their firms are located at a greater distance from the owners' home country and operate in host regions with lower unemployment rates. This evidence is in line with the notion that owner-managers benefit their firms through all three proposed mechanisms: reduced agency costs, superior access to home-country resources, and better managerial skills acquired abroad.

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Insert Table 5 about here

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**Alternative explanations and robustness checks**

We start this section by exploring the validity of the key assumptions that we maintained when instrumenting for the owner-manager choice. In particular, we assumed that the work permit assignment was independent from the firm characteristics and could not be systematically manipulated through bribing or entry timing. Below, we discuss what would happen to our results if some entrepreneurs were able to influence visa assignment through bribing.

The nature of our instrument is so that the effect of owner-managers is identified from the negative impact of the policy change on the average performance of non-CIS firms. After the policy change, some entering non-CIS firms that were supposed to have owner-managers were assigned hired managers because firm owners could not get work permits to manage their firms. Such firms received performance penalties. This decreased average performance of non-CIS firms that entered after the change (see column 6 of Table 6 for the reduced version of the 2SLS model, which demonstrates a negative effect of the policy change). Therefore, the more negative the average firm performance after the policy change, the larger the presumable impact of owner-managers.

We expect that if bribing and entry timing were to take place, they would be more likely among entrepreneurs expecting high returns to owner-management. Thus, in considering the impact of potential manipulation of the system, one should first note that if such behavior is prevalent, it should bias our coefficient for owner-manager toward zero. If very good entrepreneurs could more easily receive visas after the policy change, only firms expecting a low performance penalty for substituting an agent for an owner-manager would be assigned hired managers. As a result, the decrease in the average performance of non-CIS firms would be small, and the coefficient for an owner-manager would be biased toward zero.

Alternatively, our results may be inflated if less skillful owner-managers were better at getting work visas. In practice, however, this is less likely since this would mean that entrepreneurs expecting low returns to owner-management would invest high effort and money in getting work permits. This would be possible only if bad owner-managers were better at bribing Russian authorities (bribing is less costly) or had significant private benefits from owner-management, which would make bribing worth extra effort and money. Owner-managers may be better at bribing if they come from countries with high corruption levels. Thereby, the impact of the visa policy change would be greater for entrepreneurs from more corrupt countries. Entrepreneurs may also get private benefits from relocation if they find Russia a more attractive place to live: for example, if they come from countries with low GDP per capita. However, our empirical results do not support such expectation and suggest that it is unlikely that our findings are driven by low-quality owner-managers.[20]

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Insert Table 6 about here

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[20] These and other unreported results are available on request.

There are also other reasons to believe that bribing and entry-timing behaviors are unlikely to be significant factors: If there were any heterogeneity in the work permit assignment associated with firm performance, it would be more pronounced in the second half of the year, when quotas are more limited and bribing is more likely. However, we do not observe any significant variation in the policy effect for firms that entered in the first and second halves of the year (see column 1 of Table 6). For simplicity, instead of the 2SLS model, we use a reduced model, where we limit our sample to non-CIS firms.

Another concern is that firms that entered before and after the policy change may be different. We address this concern in two ways: First, we compared observed characteristics of pre- and post-change firms and found no significant differences.[21] Second, we use a model with an alternative instrument, regional quotas in 2005–2007. Here, we limit our sample to post-change non-CIS firms. Normally, the quota was first decided upon at the federal level and then divided between the regions. In 2005–2007, regional quotas were announced late (April–May). Thus, foreign entrepreneurs did not have enough time to adjust their location choices accordingly and found firms in alternative regions. We instrument for the owner-manager choice with quota variations within a region, using non-CIS firms that entered Russia in 2005–2007 and including region fixed effects. CIS firms are not used as a control group, because they were also assigned a quota in 2007. The results are very similar to the main estimates (see column 2), suggesting that the difference between pre- and post-change firms is not driving our findings.

Interestingly, in 2008 Russia introduced a reverse policy change, which exempted all foreign CEOs from the quota system. To examine the effect of the reverse policy change on firm performance, we limited our sample to non-CIS firms entering in 2007 and 2008, since 2007 is most similar to 2008 in economic and political conditions, and compared their performance in

the year of entry. We can no longer use the CIS comparison group since in 2007–2008 CIS firms were also affected by the quota system and the CEO exemption. To further support our findings, we show that when we instrument for the owner-manager choice with this reverse policy change, the coefficient for *owner-manager* variable remains positive (see column 3). Since the 2008 reverse change applied solely to CEOs, these results reinforce our belief that our findings are not driven by any alternative mechanisms, such as reduced supply of foreign labor or the size of local ethnic communities. Otherwise, the 2008 change for CEOs would have had no effect.

The instrument may also be less likely to work if foreign entrepreneurs who are unable to get visas hire outside managers and later replace them with owner-managers. However, the costs of manager replacement are high. Moreover, the work permit application has to be initiated by the firm CEO, who is unlikely to favor his own replacement. In the Russian data, we do not observe any cases where a hired manager has been subsequently replaced with an owner-manager, even though we observe successions of hired managers. Alternatively, entrepreneurs who did not get work permits could close their firms. The number of first-year exits did not increase among non-CIS firms founded after the policy change. Additionally, entrepreneurs are likely to close those firms that are expected to do particularly badly without owner-managers. This would decrease the magnitude of our coefficient in the 2SLS model, rather than inflate it.

One might worry that Russian managers may be better at manipulating accounting systems and underreporting profits. As a robustness test, we confirm that the findings hold for an alternative, nonfinancial, measure of firm performance—firm survival for three years or longer. Model 4, estimated by ivprobit, demonstrates a significant positive effect of foreign owner-managers on survival. Another potential concern is that owner-managers may reduce operating costs by not taking their salaries. If this were true, we would see a much smaller effect of foreign

[21] The results are available by request.

owner-managers in larger firms, where the CEO's salary accounts for a smaller share of costs. To exclude small firms, we drop firms that are in the bottom quartile of the asset distribution.[22] The results in column 5 demonstrate that the effect of a foreign owner-manager does not decrease in larger firms. This suggests that the impact of foreign owner-managers likely goes beyond potential owner-managers' salary saving.

Finally, we make sure that the findings are robust to the sample and model modifications. First, we check that the results hold in the reduced form of the 2SLS model, where OROA is directly regressed on the instrument, without the first-stage scaling (see column 6). As expected, the effect of the policy change on the average performance of non-CIS firms is negative and significant. We also make sure that our main findings hold when we control for the firm's two-digit industry and the entrepreneur's country of origin. The findings are not driven by China—the country that provides the largest number of foreign entrepreneurs—or any other influential country. Moreover, the results are not driven by the time-variant industry changes since they are robust to the inclusion of the median industry-year OROA.

**Discussion and Conclusion**

The entrepreneurship literature has extensively studied an individual's decision to found a new venture (e.g., Blanchflower and Oswald, 1998; Hamilton, 2000; Klepper, 2007; Nanda and Sorensen, 2010; Schumpeter, 1949; Sorenson and Audia, 2000) but has little to say about the individual's choice to operate this venture personally or hire an agent. This decision is particularly challenging for foreign entrepreneurs, who, in addition to traditional factors, such as

[22] We use assets rather than the number of employees to exclude small firms, because the number of employees is not available for all firms and is only reported after 2002. However, where available, the number of employees has a strong positive correlation with the value of assets.

agency costs and personal preferences, also need to take into consideration the benefits and liabilities of foreignness.

In this paper, we have found that foreign entrepreneurs who choose to manage their firms personally positively affect firm performance relative to local managers. This effect is primarily achieved through cost reduction rather than an increase in the firm's revenue or revenue growth. We have also found that foreign owner-managers are associated with a greater cost reduction in more distant firms, firms located in regions with lower unemployment rates, and firms having founders from countries with superior management practices. These results are consistent with the idea that the cost reduction is achieved through three potential mechanisms: reduced agency costs, superior access to home-country resources, and better management skills of entrepreneurs from certain countries acquired abroad. One should note, however, that our results do not imply that any randomly chosen foreign entrepreneur improves firm performance relative to a hired manager. Our findings apply to foreign entrepreneurs who willingly become managers and suggest that those foreign entrepreneurs bring real value to their firms.

Similar to prior literature (e.g., Aldrich and Waldinger, 1990; Saxenian *et al.*, 2007), we defined a foreign entrepreneurial firm as a firm owned by one or several individuals with non-Russian citizenship. However, foreign entrepreneurs comprise a non-homogenous group. It may include individuals who decide to start firms abroad when living outside of Russia and then immigrate with their firms or continue living abroad. It may also include foreign individuals already living in Russia when they decide to found firms. Some researchers may define foreign entrepreneurs even more broadly and incorporate all individuals born abroad (e.g., Portes *et al.*, 2002). A major difference between these types of foreign entrepreneurs is their tenure in a host country, which defines their networks and knowledge. Recent immigrants have the most benefits

and the highest liabilities of foreignness, whereas other foreign entrepreneurs fall somewhere between this extreme and domestic entrepreneurs. In this study, we primarily focus on foreign entrepreneurs with little or no host-country tenure. Since Russia has relatively recently become open to foreigners and has no open immigration system, the majority of foreign entrepreneurs there have only recently relocated from their home countries, and some still live at home. It may be useful to start developing our understanding of foreign entrepreneurs from this extreme group and then examine how their behavior may change with the host-country tenure. In the absence of precise owner-managers' tenure information, we also tried to approximate their host-country tenure based on the age of the firm, but we found no significant moderating effect of firm age. Whereas this may suggest that the negative effect of losing foreign connections is compensated with the positive effect of diminished liabilities of foreignness, the lack of a significant effect may also be driven by the imprecise measure of the host-country tenure or by the fact that the majority of firms in our sample are still relatively young and thereby their owners' host-country tenure in Russia is presumably very short. Thus, in future research, it may be beneficial to further investigate this issue using a more direct measure of entrepreneur tenure and a longer observation window.

In future work, it may also be worth further examining under which conditions the effect of a foreign owner-manager may become most and least pronounced. Similarly to the prior literature in the domestic context (e.g., Adams, Almeida, and Ferreira, 2009), our findings point to a negative bias in the OLS results and the difference in means. This may suggest that entrepreneurs manage more difficult and uncertain projects, which require more managerial effort and attention, as well as firms with inherently lower profitability, and hire managers for more solid ventures. This is consistent with the prediction in the literature that owner-managers

are more valuable during bad times and difficult projects (De Fraja, 1996). Another potential explanation for the negative bias may be that less wealthy entrepreneurs may be more willing to relocate to Russia to manage their firms personally, but at the same time may have fewer resources to support their firms.

It might also be interesting to learn how the observed effect of a foreign owner-manager may play in other institutional settings. Our findings suggest that foreign owner-managers are able to reduce operating costs in their firms. Our further empirical evidence is consistent with the notion that foreign owner-managers may be able to reduce costs through eliminating the principal-agent problem (e.g., Anderson and Reeb, 2003; Villalonga and Amit, 2006), accessing beneficial foreign and ethnic resources (e.g., Kulchina, 2015b; Portes *et al.*, 2002), and having better management skills inherited from their home countries (e.g., Nachum, 2003; Perez-Batres and Eden, 2008). Prior studies provide evidence of the principal-agent problems in different countries. However, the magnitude of the agency effect may be larger in emerging markets with less developed formal institutions (e.g., Luo and Chung, 2013). This may point to a stronger effect of foreign owner-managers in less developed countries. Conversely, the ability to access cost-efficient home-country resources may bring even larger benefits in developed countries because of a greater difference between host-country and home-country costs of labor and inputs.

We have also explored if our findings may be specific to the Russian setting due to any unusual taxation or corruption situation. If this were true, the observed effects would be stronger in the Russian regions with more difficult tax administration and higher corruption. However, this is not supported by our additional empirical evidence.[23] While this observation further ensures that our findings are not setting-specific, we would also welcome replications of our

[23] Detailed results are available on request.

findings in other settings as well as further research on how the magnitude of the observed effect may vary in other countries.

In summary, this paper makes several key contributions to the literature. First of all, it contributes to the literature on the strategies of entrepreneurial ventures and family firms (e.g., Amore *et al.*, 2014; Bennedsen *et al.*, 2007; Kalnins and Chung, 2006; Le Breton-Miller *et al.*, 2011) by studying an important and growing population of foreign entrepreneurs. Prior literature has been largely concerned with the firm founding decision and ignored other strategic choices that accompany this decision (e.g., Portes *et al.*, 2002; Saxenian *et al.*, 2007). The literature has also primarily assumed that all foreign entrepreneurs manage their firms personally and, therefore, all firms equally benefit from foreign founders (e.g., Portes, 1987; Portes *et al.*, 2002; Sanders and Nee, 1996). We extend this literature by going beyond the founding decision and examining how the choice between managing a firm personally and hiring a professional manager may affect the performance of a foreign entrepreneurial start-up. Moreover, our paper speaks to the research on what makes foreign entrepreneurial firms successful. Prior studies have primarily focused on the human characteristics of foreign entrepreneurs, such as age, gender, education, and experience (e.g., Fairlie, Zissimopoulos, and Krashinsky, 2010), or on their ability to obtain outside financing (e.g., Bengtsson and Hsu, 2014). Our study demonstrates that firm performance also varies significantly depending on the foreign founder's role in the firm.

These findings also have broader implications to the entrepreneurship literature, which go beyond the setting of foreign entrepreneurs. Our work is one of the first to demonstrate that entrepreneurs do not always operate their firms personally and that the choice between an owner-manager and a hired manager has a significant impact on the performance of young ventures. These findings point to the need of further research on the founders' motives in operating their

firms or delegating firm management to hired agents, their choice of hired managers, and their differential role and impact in firms that they do not manage personally.

Furthermore, our findings provide evidence consistent with the three mechanisms responsible for the owner-manager's effect: reduced agency costs, access to unique resources, and superior management skills developed abroad. These finding also have broader theoretical implications that go beyond foreign entrepreneurial ventures. For example, agency problems have been primarily studied in the context of established firms, whereas they have been believed to be minimal in start-ups due to entrepreneurs' high incentives to carefully monitor their managers (e.g., Demsetz and Lehn, 1985; Jensen and Meckling, 1976). Our findings suggest that agency problems are also significant in entrepreneurial start-ups. Owner-managers would, therefore, have higher value when agency costs are expected to be large and when entrepreneurs have acquired superior management skills.

Prior research studies also placed strong emphasis on the liabilities of being an outsider and a foreigner, which may be particularly strong for entrepreneurial ventures (e.g., Dahl and Sorenson, 2012; Kalnins and Chung, 2006; Zaheer and Mosakowski, 1997). They often suggest that firms should hire local managers to reduce such liabilities (e.g., Berger et al. 2011; Mezias 2002). Our findings point to the positive value of outside managers and call for further, more nuanced, investigation of the role of non-local managers in international ventures and ventures founded by entrepreneurs from outside regions.

In addition, our study speaks to the growing research on top managers and their role in firm performance (e.g., Anderson and Reeb, 2003; Bertrand and Schoar, 2003; Mackey, 2008; Miller *et al.*, 2013), by extending this literature to foreign entrepreneurial businesses. Finally, it also has implications for the question of manager succession and misfit in entrepreneurial firms

(e.g., Arthurs *et al.*, 2009; Chen and Hambrick, 2012; Nelson, 2003; Wasserman, 2003). At IPOs and acquisitions of younger firms, an owner-manager is often replaced by an outside manager selected by new shareholders. We have demonstrated that an exogenous assignment of an outside agent in place of an owner-manager who is willing to manage a firm personally often yields poor results. Thus, our work points to the importance of further research on the value of such replacements.

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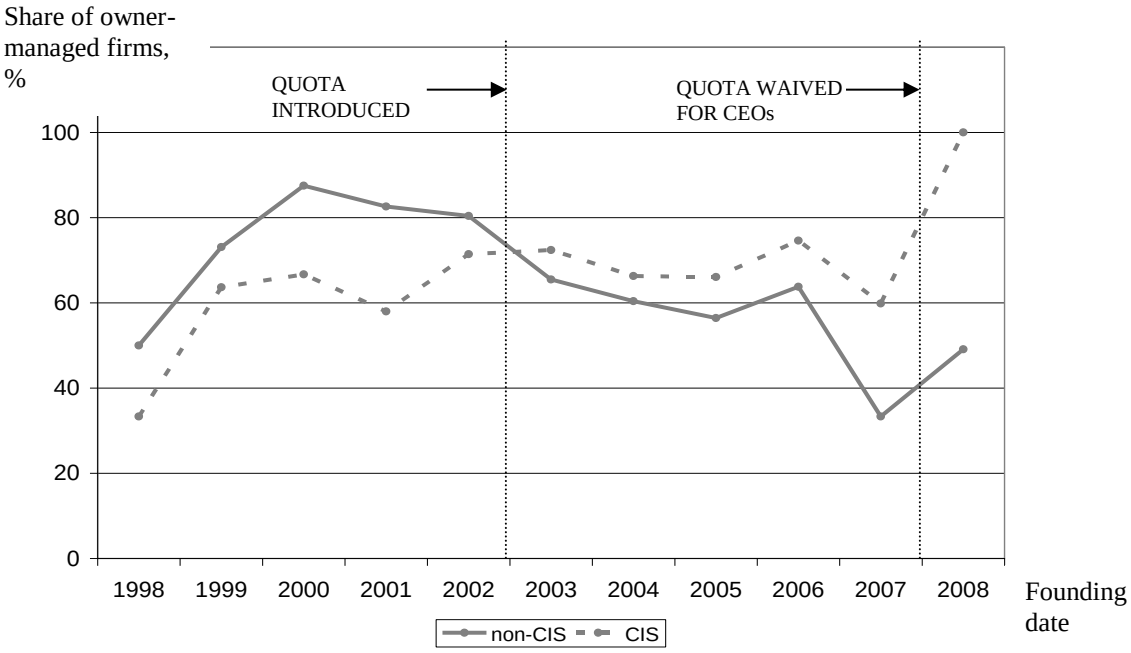


*Note*: In 2007, a separate quota was introduced for CIS firms. The 2008 quota waiver applied to both CIS and non-CIS CEOs.

Figure 1. Shares of owner-managed firms (%) among non-CIS and CIS firms, by the founding date.

Table 1. Main variables and their correlations[a]

| | Variable | Description | Mean | Std. Dev. | Min. | Max | N | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Owner-manager | Equals 1 if one of the firm owners is the firm CEO and 0 otherwise | 0.650 | 0.477 | 0 | 1 | 16,581 | 1.000 | | | | | | | | | | |
| 2 | OROA | Ratio of operating profit (earnings before interest and taxes) to the book value of assets | 0.018 | 0.339 | -2.857 | 1.360 | 16,581 | -0.003 | 1.000 | | | | | | | | | |
| 3 | Ln(revenue) | Natural log of 1+operating revenue | 9.425 | 7.491 | 0 | 30.305 | 16,581 | -0.239 | 0.159 | 1.000 | | | | | | | | |
| 4 | Ln(cost) | Natural log of 1+operating cost | 9.706 | 7.327 | 0 | 30.261 | 16,581 | -0.251 | 0.085 | 0.969 | 1.000 | | | | | | | |
| 5 | Ln(assets) | Natural log of the book value of assets | 12.868 | 3.000 | 6.908 | 28.906 | 16,581 | -0.304 | 0.109 | 0.762 | 0.773 | 1.000 | | | | | | |
| 6 | Ln(long debt) | Natural log of 1+long debt | 1.861 | 4.681 | 0 | 20.327 | 16,581 | -0.144 | -0.036 | 0.177 | 0.192 | 0.320 | 1.000 | | | | | |
| 7 | Shareholders | The number of shareholders | 1.068 | 0.339 | 1 | 8 | 16,581 | -0.073 | -0.023 | 0.066 | 0.069 | 0.072 | 0.035 | 1.000 | | | | |
| 8 | Revenue growth | Revenue growth in t relative to t-1 | 2.195 | 7.818 | -1 | 21 | 6,250 | -0.003 | -0.004 | 0.017 | 0.017 | 0.016 | -0.004 | -0.003 | 1.000 | | | |
| 9 | Ln(distance) | Natural log of distance | 7.722 | 0.868 | 5.119 | 9.394 | 13,726 | 0.043 | -0.001 | -0.015 | -0.014 | -0.018 | 0.043 | -0.137 | 0.010 | 1.000 | | |
| 10 | Ln(country GDP per capita) | Natural log of the home-country GDP per capita | 8.244 | 1.397 | 4.748 | 12.175 | 16,339 | -0.318 | 0.023 | 0.166 | 0.176 | 0.263 | 0.158 | 0.036 | -0.012 | -0.185 | 1.000 | |
| 11 | Region unemployment rate | Region unemployment rate | 1.180 | 1.655 | 0.360 | 70.091 | 17,506 | -0.031 | 0.057 | -0.036 | -0.045 | -0.077 | -0.079 | 0.024 | -0.003 | -0.146 | -0.158 | 1.000 |
| 12 | Home-country management practices | Average management score of companies in the home country | 2.778 | 0.205 | 2.528 | 3.286 | 9,513 | -0.349 | 0.049 | 0.122 | 0.128 | 0.201 | 0.179 | -0.016 | -0.0004 | 0.074 | 0.876 | -0.090 |

a) All firm-level financial variables are in nominal Russian rubles. Variation in sample size is due to differences in data availability for key variables of interest.

Table 2. Comparison of means for firms with and without owner-managers[a]

| | (1) | (2) | (3) |
|---|---|---|---|
| Variable | Owner-manager | Hired manager | Difference (1)-(2) |
| OROA | 0.017 | 0.019 | -0.002 |
| | (0.003) | (0.005) | (0.006) |
| Ln(assets) | 12.200 | 14.109 | -1.909 |
| | (0.028) | (0.036) | (0.046) |
| Ln(revenue) | 8.110 | 11.870 | -3.760 |
| | (0.073) | (0.089) | (0.118) |
| Ln(cost) | 8.360 | 12.209 | -3.849 |
| | (0.071) | (0.085) | (0.116) |
| Ln(long debt) | 1.368 | 2.779 | -1.411 |
| | (0.039) | (0.074) | (0.075) |
| Shareholders | 1.050 | 1.101 | -0.052 |
| | (0.003) | (0.005) | (0.006) |
| Employees | 19.021 | 30.793 | -11.773 |
| | (0.605) | (1.192) | (1.240) |
| N[b] | 10,783 | 5,798 | |

a) Standard errors are in parentheses. Monetary values are in Russian rubles.
b) Except for the number of employees, since employment data are available from 2003.

Table 3. Effect of a foreign owner-manager on OROA[a]

| | (1) | (2) | (3) |
|---|---|---|---|
| | OLS | 2SLS | |
| Dependent variable | OROA | OROA | |
| Estimation | OLS | 2SLS | |
| | | 1st stage | 2nd stage |
| Owner-manager | 0.016 | | 0.289 |
| | (0.008) | | (0.116) |
| Ln(revenue) | 0.008 | -0.013 | 0.011 |
| | (0.0004) | (0.001) | (0.002) |
| Ln(long debt) | -0.004 | -0.011 | -0.001 |
| | (0.001) | (0.001) | (0.001) |
| Shareholders | -0.035 | -0.082 | -0.010 |
| | (0.009) | (0.026) | (0.017) |
| Non-CIS | -0.035 | 0.080 | -0.023 |
| | (0.009) | (0.043) | (0.012) |
| Non-CIS*Post | | -0.188 | |
| | | (0.048) | |
| Constant | 0.019 | 0.962 | -0.220 |
| | (0.049) | (0.042) | (0.109) |
| Date dummies | Yes | Yes | Yes |
| Year dummies | Yes | Yes | Yes |
| $R^2$ | 0.039 | | |
| F-test for the excluded instrument | | 15.14 | |
| N | 16,581 | 15,819 | 15,819 |

a) Robust standard errors clustered on firm are in parentheses.

*Sample:* Model 1 includes all foreign entrepreneurial firms. Models 2 and 3 include firms founded before 2007.

Table 4. Effect of a foreign owner-manager on costs, revenue, and revenue growth[a]

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Effect on costs | | Effect on revenue | | Effect on revenue growth | |
| Dependent variable | Ln(cost) | | Ln(revenue) | | Revenue growth | |
| Estimation | OLS | 2SLS 2nd stage | OLS | 2SLS 2nd stage | OLS | 2SLS 2nd stage |
| Owner-manager | -0.215 | -1.700 | -0.218 | -3.021 | -0.184 | -0.389 |
| | (0.046) | (0.601) | (0.129) | (1.973) | (0.200) | (3.171) |
| Ln(assets) | | | 1.895 | 1.768 | 1.452 | 1.384 |
| | | | (0.022) | (0.090) | (0.101) | (0.144) |
| Ln(revenue) | 0.933 | 0.915 | | | | |
| | (0.004) | (0.009) | | | | |
| $Ln(revenue)_{t-1}$ | | | | | -1.844 | -1.774 |
| | | | | | (0.118) | (0.123) |
| Ln(long debt) | 0.027 | 0.011 | -0.115 | -0.129 | -0.042 | -0.041 |
| | (0.005) | (0.008) | (0.013) | (0.019) | (0.019) | (0.025) |
| Shareholders | 0.044 | -0.070 | 0.100 | -0.103 | -0.001 | -0.013 |
| | (0.058) | (0.083) | (0.149) | (0.195) | (0.388) | (0.447) |
| Non-CIS | -0.038 | -0.110 | -1.918 | -1.984 | 0.073 | -0.030 |
| | (0.040) | (0.060) | (0.146) | (0.183) | (0.232) | (0.277) |
| Constant | 0.882 | 2.411 | -19.229 | -9.436 | 23.853 | 10.195 |
| | (0.230) | (0.564) | (1.193) | (2.707) | (2.208) | (4.772) |
| Date dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Year dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| $R^2$ | 0.940 | | 0.601 | | 0.184 | |
| N | 16,581 | 15,819 | 16,581 | 15,819 | 6,250 | 6,128 |

a) Robust standard errors clustered on firm are in parentheses.

*Sample:* Models 1 and 3 include all foreign entrepreneurial firms. Models 2 and 4 include firms founded before 2007. Models 5 and 6 exclude firms that did not exist or had zero revenue at t-1. Model 6 is further limited to firms founded before 2007.

Table 5. Mechanisms underlying the negative effect of a foreign owner-manager on firm operating costs[a]

| | (1) | (2) | (3) |
|---|---|---|---|
| | Agency | Resources | Skills |
| Dependent variable | | Ln(cost) | |
| Estimation | OLS | OLS | OLS |
| Owner-manager | 0.850 | -0.314 | 2.511 |
| | (0.332) | (0.072) | (1.106) |
| Owner-manager*ln(distance) | -0.126 | | |
| | (0.045) | | |
| Owner-manager*region unemployment rate | | 0.096 | |
| | | (0.044) | |
| Owner-manager*management practices | | | -2.174 |
| | | | (0.631) |
| Owner-manager* | | | 0.401 |
| ln(home-country GDP per capita) | | | (0.097) |
| Ln(revenue) | 0.923 | 0.932 | 0.933 |
| | (0.005) | (0.004) | (0.006) |
| Ln(long debt) | 0.028 | 0.027 | 0.028 |
| | (0.006) | (0.005) | (0.007) |
| Shareholders | 0.054 | 0.040 | 0.154 |
| | (0.076) | (0.058) | (0.168) |
| Non-NIS | n/a | -0.027 | n/a |
| | | (0.040) | |
| Ln(home-country GDP per capita) | | | 0.005 |
| | | | (0.081) |
| Ln(distance) | -0.029 | | |
| | (0.088) | | |
| Region unemployment rate | | 0.025 | |
| | | (0.035) | |
| Management practices | | | 0.329 |
| | | | (0.501) |
| Constant | -0.067 | 1.146 | 0.433 |
| | (0.757) | (0.183) | (0.859) |
| Year dummies | Yes | Yes | Yes |
| Date dummies | Yes | Yes | Yes |
| Country dummies | Yes | No | No |
| Region dummies | Yes | No | No |
| $R^2$ | 0.945 | 0.941 | 0.946 |
| N | 15,007 | 16,574 | 9,513 |

a) Robust standard errors clustered on firm are in parentheses.

*Sample:* Variation in sample size across specifications is due to differences in data availability for key variables of interest.

Table 6. Alternative explanations and robustness checks[a]

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Founding time | Regional quota as IV | 2008 policy change as IV | Survival | Excluding small firms | Reduced model | With industry | Date and country dummies | With median industry-year OROA | Excluding China |
| Dependent variable | OROA | OROA | OROA | Survived for 3 years | OROA | OROA | OROA | OROA | OROA | OROA |
| Estimation | OLS | 2SLS | 2SLS | ivprobit | 2SLS | OLS | 2SLS | 2SLS | 2SLS | 2SLS |
| Owner-manager | | 0.277 | 0.447 | 1.981 | 0.440 | | 0.286 | 0.384 | 0.309 | 0.344 |
| | | (0.129) | (0.271) | (0.207) | (0.197) | | (0.137) | (0.194) | (0.119) | (0.176) |
| Post | -0.026 | | | | | | | | | |
| | (0.012) | | | | | | | | | |
| Non-CIS | n/a | n/a | n/a | 0.155 | -0.021 | 0.0004 | -0.020 | n/a | -0.019 | -0.007 |
| | | | | (0.052) | (0.018) | (0.016) | (0.014) | | (0.012) | (0.020) |
| Second half | -0.007 | | | | | | | | | |
| | (0.009) | | | | | | | | | |
| Post*Second half | -0.010 | | | | | | | | | |
| | (0.015) | | | | | | | | | |
| Non-CIS*Post | | | | | | -0.054 | | | | |
| | | | | | | (0.019) | | | | |
| Median industry-year OROA | | | | | | | | | 1.059 | |
| | | | | | | | | | (0.153) | |
| Constant | 0.064 | -0.128 | -0.267 | -1.555 | -0.370 | 0.050 | -0.278 | -0.153 | -0.258 | -0.266 |
| | (0.031) | (0.142) | (0.219) | (0.154) | (0.173) | (0.044) | (0.164) | (0.192) | (0.112) | (0.147) |
| Control variables | ln(revenue), ln(long debt), shareholders and year in all models, as well as date, country, and industry dummy variables in the appropriate models. Model 2 also includes region dummy variables. | | | | | | | | | |
| N | 13,350 | 1,071 | 215 | 4,627 | 11,947 | 15,819 | 15,819 | 15,819 | 15,819 | 11,146 |

a) Robust standard errors clustered on firm are in parentheses.

*Sample:* Model 1 includes firms founded before 2007, for which we could identify the month of registration. Model 2 includes non-CIS firms founded in 2005–2007. Model 3 includes non-CIS firms founded in 2007–2008 and observed in the founding year. Model 4 includes all firms founded before 2006; firms are observed only once; sample is cross-sectional. Model 5 excludes firms with assets in the bottom quartile; firms are founded before 2007. Models 6–9 include all firms founded before 2007. Model 10 excludes firms founded by entrepreneurs from China (the largest country of origin); firms are founded before 2007.