Is It Worth Trusting Your Manager?

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Abstract

Researchers have long been interested in the role of top managers in organizations. The existing research, however, has largely focused on the individual characteristics of managers and paid less attention to the social aspects of the relationships between managers and owners. In this paper, we focus one such social aspect—the asymmetry of trust between an owner and a manager. We use a setting of entrepreneurial firms and examine how the trust-asymmetry between an entrepreneur and an outside manager affects firm performance. We argue that managers who are under-trusted relative to their own levels of trust will feel frustrated and disappointed, leading to low performance of their firms, whereas over-trust would not necessarily have a negative impact on performance. We demonstrate that under-trusted managers are indeed associated with lower firm performance. The negative relationship is particularly strong when communication between an owner and a manager is expected to be more difficult and when under-trust is less evident. Conversely, equal trust and over-trust have no significant negative association with the performance of firms with hired managers.

Keywords: entrepreneurs, top managers, trust, firm performance.

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1 Introduction

The impact of top managers on firm performance has been explored extensively in the strategy literature over the past decade (e.g., Bertrand, 2009; Mackey, 2008; Miller, Minichilli, and Corbetta, 2013). It has been found that managers' origin, human capital, skills, character traits, equity ownership, and operating practices can all have significant impacts (e.g., Bertrand and Schoar, 2003; Bloom and Van Reenen, 2007; Boivie, Lange, McDonald, and Westphal, 2011; Flynn and Staw, 2004; Karaevli, 2007; Malmendier and Tate, 2005; Galasso and Simcoe, 2011).

The existing research, however, has focused primarily on the manager's characteristics and paid less attention to the relationships between a manager and firm owners. When acknowledged, owner-manager relationships have been typically viewed through the prism of the agency theory (e.g., Anderson and Reeb, 2003; Villalonga and Amit, 2006), whereas social aspects of these relationships, such as trust, personal beliefs, and cultural and gender differences, have been taken into consideration less frequently.

We aim to address this gap and examine how the differences in trust levels between a manager and a firm owner may affect firm performance. In general, trust is believed to be a positive thing in business relationships: it leads to higher delegation of authority, efficient communication of information, and fewer conflicts (e.g., Bloom, Sadun, and Van Reenen, 2012; Li, Poppo, and Zhou, 2010; Zaheer, McEvily, and Perrone, 1998). However, we believe that the impact of the owner's trust should not be judged independently from the level of trust of the manager. On the one hand, trusting opportunistic managers too much, and thereby providing them with excessive information and authority, may give such managers a greater opportunity to take advantage of the shareholders (e.g., McEvily, Perrone, and Zaheer, 2003). On the other

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hand, managers who are trusted too little relative to their own levels of trust and trustworthiness may feel discouraged and reduce their work effort (e.g., Ghoshal and Moran, 1996).

In line with the prior literature, we define trust as an expectation of one party that another party will not act opportunistically and exploit its vulnerabilities (Gulati and Nickerson, 2008; Barney and Hansen, 1994). Trustworthiness means not taking advantage of the vulnerabilities of other party (Ben-Ner and Halldorsson, 2010). Expected trust is the level of trust that individuals expect from other people. Based on the prior experimental studies, we anticipate high correlation between an individual's trust, trustworthiness, and expected trust (e.g., Sapienza, Toldra-Simats and Zingales, 2013). Thereby, in our view, a trusting individual is likely trustworthy and expects to be trusted by others. For the purpose of this study, we determine that a hired manager is under-trusted when his or her level of trust is higher than that of the firm owner. Conversely, a hired manager is over-trusted when his or her level of trust is lower than that of the owner. Finally, a hired manager has equal trust when the manager's and owner's levels of trust are equal.

We argue that under-trust will have a negative effect on the performance of firms with hired managers. Under-trusted managers will become frustrated and have lower motivation and commitment (e.g., Ghoshal and Moran, 1996). Managers may also work less efficiently without as much authority and information as they used to have.

Our theoretical predictions regarding the effect of the over-trust are less uniform: On the one hand, over-trusted managers may reduce firm performance if they take excessive trust and authority as an opportunity to shirk (e.g., McEvily et al., 2003). On the other hand, over-trust may stimulate managers to act in a trustworthy manner, thereby not generating any negative effect on performance (e.g., McEvily et al., 2003).

We examine the impact of trust asymmetry between an owner and a manager in a setting of foreign entrepreneurs in Russia between 1997 and 2007. This unique setting allows us to account for the levels of trust of an owner and a manager using a trust measure from the World Values Survey (WVS). We proxy for the entrepreneur's levels of trust with average generalized trust in his or her home country.[1] The manager's level of trust is measured as average trust in his or her regions of location. To generate a measure of trust asymmetry, we compare the owner's and manager's levels of trust and determine whether a manager was under-trusted, was over-trusted, or received equal trust from the owner. To address endogeneity concerns, we control for the entrepreneur's home-country and the manager's region of location. We also use firms with owner-managers as a comparison set. Owner-managed firms are not affected by the asymmetry of trust between an owner and a manager, but they are affected by all other country-region factors.

We find a negative association between under-trust and the performance of firms with hired managers. This effect is particularly strong for smaller values of under-trust, presumably because such under-trust is less evident for both parties and does not stimulate sorting out particularly sensitive managers and creating formal mechanisms of communication and control. The effect of under-trust is also more pronounced when an owner resides at a longer distance from the firm, which complicates coordination between an owner and a manager and increases frustration. In regard to over-trust, our results are consistent with our second expectation: over-trust has no negative association with the performance of firms with hired managers, presumably

[1] We define generalized trust as an individual's general willingness to trust others (see Mayer, Davis, and Schoorman (1995) for a discussion). Alternatively, some authors rely on relationship-specific trust, i.e., trust developed between two parties to each other through repeated interactions. Relationship-specific trust typically takes significant time to form. Since foreign entrepreneurs and Russian managers typically have had few interactions with each other prior to firm founding, we expect that they have been unlikely to develop significant deviations from generalized trust. Indeed, prior studies have demonstrated that generalized trust can be a reliable proxy variable for the levels of trust in international collaborations (Bloom et al., 2012; Muethel and Bond, 2013).

because it stimulates trustworthy, rather than opportunistic, behavior. These results are robust to a battery of additional tests, such as replacing average trust with trust to foreigners, controlling for the country-region differences in economic variables, management practices, religiosity, culture, business obstacles, as well as instrumenting for the hired manager assignment, and using Orange revolution in Ukraine as an exogenous shock shifting trust values.

These findings contribute to several areas of the strategy and organization literature. First, they speak to the top-management research. Prior studies have primarily focused on the characteristics of a manager and largely ignored social aspects of the relationships between a manager and an owner. We address this gap by focusing on one social aspect of these relationships—trust—and demonstrate that trust asymmetry between an owner and a manager may significantly affect firm performance.

In addition, our findings contribute to more general literature on the role of trust in business relationships. This literature has largely focused on unilateral trust (e.g., Gulati and Nickerson, 2008) and paid less attention to the potential asymmetries of trust between business actors (Zaheer and Zaheer, 2006). Our findings imply that such an asymmetry may play a role in the outcome of the business relationships. While we focus on entrepreneurial firms, we expect that similar asymmetries may arise in other business relationships, such as between shareholders and managers in public firms, between parent-firms and their subsidiaries, between organizations in an alliance, and between employees within a firm. Examining whether the observed effects of under-trust and over-trust hold in those relationships may become a potential avenue for future research.

Finally, this paper contributes to the international strategy literature, which has long been interested in understanding the role of cultural and social distances, including trust, in

international ventures (see Zaheer and Zaheer (2006) for review). Prior research has focused on the formation of trust and its role in inter-organizational partnerships and has paid less attention to trust asymmetries and relationships within a venture. Our study focuses on the relationships within an international organization and examines how cross-national asymmetries in trust may affect its performance.

2 Theoretical Background

Trust between parties is believed to be an important aspect of business relationships (e.g., Davis, Schoorman, Mayer, and Tan, 2000; Gulati and Nickerson, 2008; Zaheer et al., 1998; Zaheer and Zaheer, 2006). Thus, trust between an owner and a manager may lead to higher delegation of authority, efficient communication, and fewer conflicts (e.g., Bloom et al., 2012; Li et al., 2010; Zaheer et al., 1998). Conversely, when an owner has little trust in a manager, the owner would delegate little authority but frequently interfere with the manager's decisions and impose a high level of control. A lack of trust may also lead to miscommunication between an owner and a manager: The owner may fail to provide the manager with necessary information in fear of the manager using this knowledge to his or her personal advantage. The owner may also disregard useful information coming from the manager if the owner does not trust this information.

While, in general, owner's trust seems to have a positive impact on the venture, prior studies suggest that it may be unreasonable to focus on the unilateral trust in the business relationships and automatically assume equilibrium of trust between parties (e.g., McEvily et al., 2003). Trust alignment may play an important additional role in the relationships between business actors and may enhance or reduce individuals' work effort.

For the purpose of this study, we expect that manager's general trust is highly correlated with his or her trustworthiness and the level of trust that a manager expects from others. Prior empirical studies suggest that there is a good reason to believe that individuals extrapolate their own trustworthiness when they form their beliefs about the trustworthiness of others. Therefore, there is often high correlation between an individual's level of trust and his or her own trustworthiness (e.g., Glaeser, Laibson, Scheinkman, and Soutter, 2000; Sapienza et al., 2013). It would also be natural to anticipate that trustworthy individuals also expect to be trusted by others. Based on this logic, we assume that individuals with high levels of trust are also highly trustworthy and expect to be highly trusted by others. Henceforth, we will use an individual's general trust as a proxy for all three characteristics.

When the owner's level of trust is lower than that of the manager, the owner is likely to delegate less authority than the manager would expect to have. The owner is also likely to impose a higher level of control and more frequently interfere with the manager's decisions compared to the levels that the manager would feel comfortable with. The manager will likely be frustrated with such a discrepancy and a threat to personal autonomy and will tend to develop negative feelings toward the owner. The manager may also be disappointed when his or her information is not taken seriously enough by the owner. Since entrepreneurs typically hire managers for their ventures when the entrepreneurs lack certain expertise, owners may fail to understand the processes with which they interfere and impose improper changes. This may also add to the manager's frustration. Finally, trust also serves as a sign of commitment (e.g., Lado, Dant, and Tekleab, 2008). An under-trusted manager may feel that the owner is not sufficiently committed to the relationship.

We expect that frustration, disappointment, and negative feelings toward the owner may decrease manager's work motivation and effort. Prior studies argue that distrust of trustworthy employees causes such employees to reduce motivation and commitment. Employees also become demonstrably untrustworthy as a protest against being treated with inadequate trust (e.g., Enzle and Anderson, 1993; Ghoshal and Moran, 1996; Mayer et al., 1995). Under-trusted managers may also avoid high-risk-high-benefit projects out of concern that they will be blamed for all failures. Moreover, managers are often selected on the basis of their prior performance. Managers who demonstrated high ability under conditions of equal trust may not function as effectively when their habitual routines are altered by more intense control, inefficient communication with the owner, and a lack of authority. In sum, we expect that under-trust will have a negative effect on the performance of firms with hired managers.

H1: Firms with under-trusted hired managers will have lower performance than similar firms where owners and managers have equal levels of trust, all else equal.

While the impact of under-trust is likely to be associated with lower performance of hired managers, the impact of over-trust is less straightforward. On the one hand, agency scholars expect that opportunistic managers may use every opportunity to take advantage of their owners (e.g., Jensen and Meckling, 1976). If an over-trusting owner delegates more authority and imposes less control than a manager is worthy of, the manager may use this as an opportunity to take an advantage of the owner (e.g., McEvily et al., 2003). Such behavior would lead to lower performance of firms with over-trusted managers.

H2a: Firms with over-trusted hired manager will have lower performance than similar firms where owners and managers have equal levels of trust, all else equal.

On the other hand, individuals may improve their behavior if others give them "a credit of trust." Thus McEvily et al. (2003) suggest that extra trust may encourage a manager to act in a trustworthy manner. Given that, the performance of firms with over-trusted hired managers will not be lower than that of similar firms where an owner and a manager have equal levels of trust.

H2b: Firms with over-trusted hired manager will have similar performance to firms where owners and managers have equal levels of trust, all else equal.

Since prior literature does not give us a clear theoretical guidance of which of the above mechanisms is more likely when a manager is over-trusted, we leave the net effect of an over-trusted manager on firm performance as an open empirical question.

3 Data and Main Variables

We examine the role of trust asymmetry between an owner and a manager in the setting of foreign entrepreneurial firms in Russia observed between 1997 and 2007. The data come from the Ruslana database, assembled by a private company, Bureau van Dijk (BvD), from the reports that Russian firms file to the government agencies. Ruslana and other databases by BvD, such as Amadeus and Orbis, have been extensively used in the academic research (e.g., Belenzon, Berkovitz, and Rios, 2013; Bloom, Kretschmer, and Van Reenen, 2011; Kulchina, 2014). Since all firms in Russia are required to report, the database provides comprehensive coverage of the firm population, including small private businesses. For each firm, Ruslana reports demographic, financial, ownership, and top-management information. We use this information to identify the owner's country of origin, a firm's location in Russia, and whether a firm has a Russian hired

manager or a foreign owner-manager.[2] Similarly to prior studies (e.g., Aldrich and Waldinger, 1990; Saxenian, Wadhwa, Rissing, and Gereffi, 2007), we define a foreign entrepreneurial firm as a firm founded by one or several non-Russian individuals.[3] Entrepreneurs in our sample typically manage a firm themselves or hire a Russian top manager.[4]

The setting of foreign entrepreneurs in Russia well suits our purposes: First, for foreign entrepreneurs, we can adopt a measure of trust commonly used in prior studies (e.g., Bloom et al., 2012; Muethel and Bond, 2013), which is built based on the nationalities and locations of an owner and a manager. Second, our setting allows us to more accurately assign trust to owners and manager. Foreign entrepreneurial firms typically have one or a few owners coming from the same foreign country, and when firms have hired managers, such managers are Russian. For comparison, multinational corporations (MNCs) may have multiple shareholders from different countries and hire expatriate managers, which would make nationality-based and location-based measures of trust less accurate.

Sample: To estimate the effect of trust asymmetry on firm performance, we use a pooled cross-sectional sample of firms, where each firm can be observed for up to 11 years. The estimation sample consists of 3,844 firms and 12,670 firm-year observations. Of these, 52 percent operate in the trade sector (retail and wholesale), 26 percent in services, 10 percent in manufacturing, 8 percent in construction, and 4 percent in other industries. The most common home countries are China (32% of firms), Belarus (13%), Turkey (11%), India (5%), and Ukraine (4%). The complete distribution of firms by country is provided in Appendix 2.

[2] To identify whether a firm has a hired manager or a foreign owner-manager we match names of firm owners and managers, using a procedure applied in several prior studies. The details of the procedure are described in Appendix 1 at the end of the paper.

[3] By definition, we exclude entrepreneurial firms with Russian owners and the subsidiaries of multinational corporations.

[4] We have only a few cases where a hired manager is foreign. We exclude them from the analysis since they would not be able to make a comparison set.

Firm performance: We measure firm performance as an operating return on assets (OROA).

Hired manager: We determine that a firm has a hired manager if none of the firm's owners is the firm's CEO. All entrepreneurs in our sample own at least 20 percent of the firm. This is the most conservative threshold that is used in the literature to separate a founder from a hired manager who owns firm shares (e.g., Villalonga and Amit, 2006). In our sample, foreign entrepreneurs manage 65 percent of the firms. The remaining 35 percent of businesses are operated by hired Russian managers.

Trust: We build the measures of trust using the World Values Survey (WVS). The survey was conducted in almost 100 countries in 6 waves between 1981 and 2013. We expect that foreign owners and Russian managers of start-ups have not had enough interaction to develop interpersonal trust, which typically takes significant time and collaboration to form. Therefore, they are likely to rely on their generalized trust. Indeed, prior studies have found that generalized trust is a reliable proxy for inter-relational trust in new international collaborations (e.g., Bloom et al., 2012; Muethel and Bond, 2013).[5] We use the data from three waves conducted in 1994–1999, 1999–2004, and 2005–2008, since those are the closest waves to our observation period. The survey evaluates general trust by asking individuals the following question: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" A respondent can choose one of the two answers: "Most people can be trusted" and "Need to be very careful."

[5] Empirically, any relationship-specific trust that may cause deviations from the generalized trust would add noise to our independent variable and would make it harder for us to demonstrate any significant relationships between trust asymmetry and firm performance.

In line with the prior literature (e.g., Bloom et al., 2012), we proxy for the owner's level of trust with the average level of trust in his or her home country.[6] Average home-country trust is measured as a share of people who answered "Most people can be trusted" in the total number of individuals who responded to the trust question. We focus on three waves of the survey, 1994–1999, 1999–2004, and 2005–2007, which are the closest in time to our observation period. We calculate trust share for each survey wave. Not all countries, however, are surveyed in every wave. If trust share was available for more than one wave, we calculated an average share for the available waves. We call this variable ***home-country trust*** and use it as a proxy variable for the owner's level of general trust.[7]

We proxy for the trust level of a Russian manager with an average level of trust in the federal district where a firm is located. Federal district is the smallest geographic region reported in the survey. Russia has nine federal districts. WVS measures trust in six of them, plus Moscow city. We make an assumption that a manager lives in the same federal district where his or her firm is located. We also assume that the manager has been living in this district for a long enough period of time to share average regional trust. This is reasonable since Russia has less internal migration than some other countries and it is very unlikely that a Russian manager will move to a new region to be employed by a small foreign start-up.[8] Since Russia is a large country with diverse federal districts that vary in their ethnicity and cultural compositions, trust levels have a reasonable variation within the country. We calculate trust share in each district for the 1994–1999 and 2005–2007 waves (the 1999–2004 wave was not run in Russia). Where

[6] While trust levels may vary slightly across regions within a home country, unfortunately, the dataset does not report owners' regions of origin. We expect that not accounting for such variations may add noise to our measure of trust, but would not systematically bias our findings. Indeed, when we exclude the two largest countries, the U.S.A. and Canada, where we expect the largest within-country variations, our findings remain the same.

[7] The majority of firms in our sample have single owners. In firms with multiple owners, all owners come from the same foreign country. Firms with Russian owners are excluded by definition.

[8] The results also hold if we remove Moscow—the city that attracts the highest number of Russian work migrants.

values from both waves were available, we averaged across waves. We call this variable ***location trust***.

To measure the asymmetry of trust between an owner and a manager, we calculate the difference between *home-country trust* and *location trust*. If the difference is zero, we conclude that there is equal level of trust between an owner and a manager. If the difference is negative, we conclude that the owner under-trusts the manager. If the difference is positive, we conclude that the owner over-trusts the manager. Based on this rationale, we construct our main independent dummy variables: ***equal trust***, ***under-trust***, and ***over-trust***.

One potential concern with our measures of trust is that individuals may have different levels of trust of foreigners than of their own nationals. We have several reasons to believe that this should not be a significant concern in our setting: First, WVS asks individuals about their general trust, rather than specific trust to co-nationals. Second, prior studies have determined that individuals tend to extrapolate their in-group trust to people outside of the group when they have little interaction with the outsiders (Muethel and Bond, 2013). Since Russia had opened to foreigners only a few years before our observation period, there had been little interaction between Russians and foreigners to build specific levels of trust.[9] Also, due to the restrictive Russian visa system, described below, the majority of foreign entrepreneurs in our sample lived permanently outside of Russia at the time of founding their firms and were less likely to develop specific personal trust to Russians. Therefore, we expect that average home-country and host-region trust values would be reasonably good proxy variables in our setting. Indeed, when in the robustness check we replaced average trust with specific trust to Russians and specific trust from Russians to foreigners, the results were very similar to our main findings.

[9] When we excluded Moscow, the city where we expect most interaction between Russians and foreigners, the results remained the same.

To account for the home-country and host-region characteristics that could be simultaneously correlated with our trust variables and firm performance, we include home-country and host-region dummy variables. Each Russian federal district consists of several smaller regions, which may vary in their economic characteristics. We use these smaller regions as dummy variables to more precisely account for the regional differences. Our results, however, are robust to using federal districts dummy variables instead.

In line with prior studies (e.g., Wasserman, 2003), we also include a range of control variables comprising firm and home-country characteristics: the number of shareholders, the natural logarithms of assets and long debt, home-country gross domestic product (GDP) in nominal U.S. dollars, and home-country population. Also, in the appropriate models, we control for the year of observation, firm's year of entry, and two-digit-level industry.

To further address to the omitted variable bias in our analyses, we use firms with owner-managers as a comparison group. If under-trust and over-trust variables were correlated with any omitted economic characteristic that affect firm performance, we expect that such omitted variables would equally affect firms with hired managers and owner-managers.

Table 1 reports variable definitions and key statistics, and Table 2 provides a matrix of main correlation coefficients.

Insert Table 1 about here

Insert Table 2 about here

Overall, we expect that the choice between an owner-manager and a hired manager in a foreign entrepreneurial start-up is unlikely to be endogenous to the differences in trust between

an owner and a manager. The choice may be driven by the entrepreneur's own level of trust. However, a lack of personal experience in Russia makes it unlikely that foreign entrepreneurs are able to well predict the levels of trust in Russian regions. Therefore, it is unlikely that foreign entrepreneurs will be able to construct a precise trust-difference measure.

The results in Table 3 support our expectation. Column 1 suggests a positive correlation between an entrepreneur's own level of trust and the probability of hiring a manager. This observation is in line with the prior studies that have found that trust leads to higher delegation of authority (e.g., Bloom et al., 2012; Meagher and Wait, 2014). Since hiring a manager inevitably involves at least some authority delegation, trusting entrepreneurs would be more likely to hire managers. Nevertheless, columns 2 and 3 demonstrate that the level of trust in the Russian region as well as presumable difference in trust between an owner and a potential manager have no significant correlation with the manager choice. This observation is consistent with our expectation that manager choice is likely uncorrelated with the differences in trust between a foreign owner and a Russian manager.

Insert Table 3 about here

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4 Empirical Analysis

4.1 Baseline model

We start with a baseline model where we compare performance of firms with hired managers and owner-managers. This model is shown in equation 1 and estimated by OLS.

$$OROA_{it} = \beta_0 + \beta_1 HM_i + \sum_{k=1}^{n} \beta_k Z_{itk} + \sum_{p=1}^{m} \beta_p G_{jtp} + Y_t + D_i + C_j + R_r + I_i + \varepsilon_{it} \text{ , (1)}$$

where the dependent variable is $OROA_{it}$, i is the firm, t is the year when performance is measured, HM_i is the hired manager dummy variable, $Z_{itk}$are firm-level control variables,

G_{jtp} are home-country-level control variables, I_i are industry dummy variables, C_j are country of origin dummy variables, R_r are region of location in Russia dummy variables, D_i are dummy variables indicating the year when the firm was founded in Russia (the year of entry), Y_t are the year of observation dummy variables, and ε_{it} is an error term. Henceforth, standard errors are clustered on country. (Clustering on other levels, such as region-year or firm, does not change the findings.)

Column 1 in Table 4 demonstrates that firms with hired managers on average have lower OROA than firms with owner-managers. Controlling for under-trust and over-trust does not change the findings. One should note, however, that in the subsample of firms with equal trust, a hired manager is no longer associated with lower firm performance. This suggests that in the main sample, the differences in performance between hired managers and owner-managers may potentially be attributed to the differences in trust.

Insert Table 4 about here

4.2 Under-trust and over-trust

To examine the impact of under-trust and over-trust on the performance of firms with hired managers, we first split firms with hired managers into three groups: under-trusted hired managers, over-trusted hired managers, and hired managers with equal trust. Column 4 of Table 4 demonstrates that firms with under-trusted hired managers perform worse than firms with owner-managers. Their OROA is 4.5 percentage points lower than that of similar owner-managed firms. Firms with over-trusted managers and managers with equal trust on average perform as well as their owner-managed counterparts.

In column 5, we compared under-trusted and over-trusted hired managers to managers with equal trust. Under-trust seems to be associated with lower performance of firms with hired managers: Firms with under-trusted managers have performance 13.7 percentage points lower than firms where managers experience equal trust. The coefficient for an over-trusted manager is negative, but not statistically significant and smaller in magnitude than the one for an under-trusted one. This suggests that over-trust has no significant negative association with the performance of firms with hired managers.

Columns 6 and 7 compare firms with under-trusted and over-trusted managers, while excluding firms with equal trust. These models suggest that under-trust is associated with significantly lower performance of hired managers than over-trust, with a difference of 4 percentage points.

Our results, thereby, seem to be consistent with the hypotheses 1 and 2b. They suggest that under-trust is associated with a lower performance of firms with hired managers, while over-trust does not have such a detrimental effect. Firms with under-trusted managers perform worse than similar owner-managed firms. They also perform worse than similar firms where managers do not experience a lack of relative trust.

4.3 Further exploring the impact of under-trust

As a next step, we would want to further explore the impact of under-trust on firm performance to determine in which situations such impact is likely to be larger. First, we expect that not all levels of under-trust may be equally detrimental for firm performance. We anticipate that when entrepreneur's under-trust is high, it may be better visible to the manager at the time of hiring. This will allow sorting out managers with low tolerance to under-trust. The remaining

managers, with high tolerance to under-trust, will likely be less frustrated by the trust discrepancy. Moreover, when the levels of under-trust are high, both owners and managers are likely to realize this and work out some formal mechanisms to substitute for the lack of trust. Formal coordination and control measures may decrease managers' frustration. Conversely, when under-trust is low, an owner may refuse to acknowledge its presence and work out formal mechanisms of control and information exchange. Therefore, *we expect that the negative impact of under-trust on firms with hired managers may decrease as the magnitude of such under-trust increases*.

In Table 5, we split the values of under-trust into four quartiles. In column 1, we compare hired managers at four levels of under-trust to hired managers with equal trust. In column 2, we limit sample to firms with under-trust and compare firms with hired managers to similar firms with owner-managers. In line with our expectation, we find that under-trust has the highest negative association with OROA in the first quartile and the magnitude of this association slowly diminishes for further quartiles.

Insert Table 5 about here

Second, we expect that frustration and disappointment created by under-trust are likely to be larger when timely coordination and communication with the owner are more difficult. It is frustrating enough for a manager to have less authority than he or she expects, but it is even more frustrating when his or her actions are further delayed by a slow response from the owner. Communication and coordination are likely to be more difficult and slow when entrepreneurs live farther from their firms. Since Russia does not have an open immigration system, the majority of foreign entrepreneurs in our sample are not permanent residents of Russia and need work visas to live there. However, entrepreneurs do not automatically get work visas when they

found their firm, but need to be employed by these firms. Therefore, non-managing foreign entrepreneurs typically live outside of Russia, in their home countries.

We expect that *under-trust will have a larger negative effect on the performance of firms with hired managers when firm owners live at a larger distance from their businesses*. We calculate Euclidian distance from the entrepreneur's home country to the firm's location in Russia.[10] For our estimation, we split the distance at the middle point between the shortest and the longest distances, which comes at 6,094 kilometers, or 3,787 miles. We divide our sample into firms that have distances below and above this point. Unfortunately, after splitting the sample, we no longer have enough firms with equal trust in the "above" bucket; therefore, we can no longer compare under-trusted managers to managers with equal trust. Instead, we compare firms with under-trusted managers to similar firms with owner-managers (firms with equal trust are dropped from the estimation sample). We expect the negative association of under-trust and the performance of firms with hired managers to be larger for firms with more distant owners.

Results from columns 1 and 2 in Table 6 are in line with our expectation: In proximate firms, under-trusted managers are associated with 3.9 percentage point lower OROA relative to owner-managers of similar firms. In distant firms, the negative association is 10 percentage points. The difference between groups is statistically significant. For comparison, over-trusted managers have no significant negative association with firm performance in both samples.

Insert Table 6 about here

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[10] Since we do not know a more precise location of the entrepreneur in his or her home country, we use home-country coordinates. However, our results hold if we exclude large countries, such as Canada and the United States.

5 Alternative Explanations and Robustness Checks

In considering the negative effect of under-trust on the performance of firms with hired managers, one might worry that foreign entrepreneurs may trust Russians differently from their general level of trust. We believe, however, that in our setting foreign entrepreneurs are unlikely to have developed different trust to Russians. Muethel and Bond (2013) argue that individuals form specific trust to outsiders only when they frequently interact with them. Otherwise, individuals tend to extrapolate their in-group trust to people outside of the group. Russia had opened its borders shortly before our observation period and still does not have an open immigration system, which ensures that the majority of foreign entrepreneurs permanently live in their home countries when founding their businesses in Russia. Therefore, we expect that foreigners and Russians had not have enough interactions with each other to develop specific trust and are likely to extrapolate their general trust. We confirm this empirically using additional data from WVS. In the 1989–1994 wave, WVS asked citizens of eight countries—Chile, China, Czech Republic, India, Japan, South Korea, Mexico, and Slovakia—if they trust Russians. Respondents had five answer choices: (1) "Trust completely," (2) "Trust a little," (3) "Neither trust nor distrust," (4) "Not trust very much," and (5) "Not trust at all." We measured home-country trust to Russians as a share of respondents who chose (1) and (2) in the sum of respondents who chose (1), (2), (4), and (5). We used this share to calculate under-trust, over-trust and equal trust. In line with prior studies (e.g., Bloom et al., 2012), we expect that home-country trust toward Russians is relatively stable over time and does not change much unless Russia implements significant changes in its international or immigration policies. Russia's international and immigration policy remained relatively stable in the period 1991–2000, when

Russia was largely focusing on its domestic policy.[11] We limit our estimation sample to years 1997–2000 and to firms from the eight countries listed above. Unfortunately, in such a sample, we no longer have firms with equal trust. So instead, we compare performance of firms with hired managers and owner-managers and performance of under-trusted and over-trusted hired managers. First, similarly to our main results, we find that trust of Russians has a strong positive effect on the probability of hiring a manager in Russia (see column 1 of Table 7). Second, we find that under-trusted managers are associated with a significantly lower firm performance relative to similar owner-managers and relative to over-trusted hired managers (see columns 2 and 3). These results are consistent with the idea that under-trust is negatively associated with the performance of firms with hired managers.

Insert Table 7 about here

In columns 4 and 5, we expand our robustness test even further and proxy for the managers' trust with the regional trust to foreigners, instead of the general regional trust. We use trust of foreigners in general, because WVS did not measure trust from Russians to nationals of individual countries. As with the above, respondents had four answer-choices: (1) "Trust completely," (2) "Trust a little," (3) "Neither trust nor distrust," (4) "Not trust very much," and (5) "Not trust at all." We calculated a ratio of respondents who chose (1) and (2) to the sum of individuals who answered (1), (2), (4), and (5). The measure is constructed on the federal-district level. To calculate under-trust and over-trust, we proxy for the owners' trust with the measure of trust to Russians from columns 1–3 and use the measure of trust from Russians to foreigners as a proxy variable for the managers' trust. Similarly to columns 1–3, we no longer have firms with

[11] After 2000, the new president started changing international policies and immigration rules, which could have affected the attitude toward Russians in other countries. For example, in 2005, Russia gave China several islands on Amur River, which could have improved the overall attitude toward Russia and Russians in China.

equal trust and limit our sample to years before 2001. Results, presented in columns 4 and 5, are in line with the main findings and suggest that under-trusted managers have lower OROA compared to owner-managers and over-trusted managers. We have also experimented with using general trust of foreigners in both Russian and the home country, but have found similar results.[12]

Additionally, one may wonder if entrepreneurs and managers may build relational trust in their relationships, and therefore, our generalized measure of trust may be uncorrelated with actual trust in the firms. We expect that it may take at least several years for foreign entrepreneurs and managers to build relational trust. However, eventually relational trust may indeed replace the generalized trust. Therefore, we anticipate that we will see a stronger impact of generalized trust in younger firms and weaker impact in older firms, where relational trust has already been established. Models 9 and 10 of Table 7 test this expectation by splitting our sample into firms younger and older than 5 years of age. In line with our expectation, we indeed find a negative association with our generalized measure of undertrust in younger firms and a much smaller association in older firms.

Another potential concern is that under-trusting entrepreneurs may choose to hire managers for different firms than other entrepreneurs. For example, under-trusting entrepreneurs may prefer to hold on to firms that are expected to do well and hire managers for less promising ventures. From a theoretical point, we expect that such behavior is unlikely: First, foreign entrepreneurs are unlikely to predict regional trust in Russia due to little local experience. Second, we have not found any significant correlation between manager choice and trust asymmetry (see column 3 in Table 3). To further address this concern empirically, we used an instrument that would presumably allow exogenous assignment of hired managers to some firms

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

that were supposed to have owner-managers. As mentioned earlier, foreign entrepreneurs in our sample rarely have permanent resident status in Russia and must get work permits to manage their firms. In the period of our study, Russia implemented a quota system for citizens of non-NIS countries that limited the number of issued work permits. The quotas were determined annually for all foreign workers and divided by regions based on the immigration policy and local labor-market conditions. Founding a firm in Russia did not justify a work permit, and foreign entrepreneurs had to compete for work permits with all other foreign workers. Importantly, entrepreneurs could only apply for permits after they have opened a firm; therefore, the decision to found a firm was independent from receiving a work permit. Entrepreneurs applying for permits could not precisely predict their chances of success since quota usage numbers were not publicly available. Regions could use all their quotas early but then get extra quota from the quota reserve later in the year. Timing of the application was also difficult, since entrepreneurs had to apply shortly after registering a firm, whereas firm registration could take from a few weeks to several months.

We focus on regional quotas in the years 2005–2007. In those years, regional quota allocations were announced later in the year, in April or May, so foreign entrepreneurs could not change locations of their firms according to quota allocation. We expect that foreign entrepreneurs were less likely to get work permits in the regions with low quotas. When they did not get work permits, they were forced to hire local managers. We use quota variations within a region as an instrument for the hired-manager choice and expect a negative correlation between these variables. Our sample is limited to non-NIS firms founded in Russia between 2005 and 2007. Since our sample is much smaller than to the main sample, we no longer have a comparison group of firms with equal trust and have to compare firms with hired managers to

similar firms with owner-managers. Column 6 demonstrates that, even when we instrument for the hired manager choice, under-trusted managers have significantly lower firm performance than similar owner-managers. The coefficient for an under-trusted manager is negative and significant at 10 percent, whereas the coefficient for an over-trusted manager is much smaller in magnitude and not statistically significant.

As additional robustness checks, we also make sure that our results remain the same for larger firms, with more than 21 employees (see columns 7 and 8).[13] The results also hold when we exclude two countries with the largest area and potentially highest within-country variations in trust, the U.S.A. and Canada, or when we exclude city with the highest number of foreigners, Moscow. The results hold when we control for the size of the local ethnic community and the number of ethnic entrepreneurial firms in a Russian region.[14] Finally, the results are robust to controlling for the country-region differences in economic variables[15], management practices[16], religiosity[17], Hofstede's cultural measures[18], and business obstacles[19], such as corruption, politics, crime, informal channels, taxes and others. We include interactions of a hired-manager dummy with country-region differences in the above measures. Interestingly, none of the above variables exhibit a pattern of significant effects on performance that would be similar to the impact of trust.[20]

The above tests allow us to account for many of the variables potentially correlated with the differences in trust and firm performance. In order to further address the issue of a potential omitted variable bias, we explore a situation where an exogenous change in a home country

[13] Differences in coefficients between small and large firms are not statistically significant.
[14] We collect these variables for each entrepreneur's ethnicity.
[15] We include inflation, GDP per capita, population density, and unemployment rate.
[16] We use Bloom and Van Reenen (2007) measure of management practices.
[17] Religiosity measure is calculated using WVS data.
[18] We include Hofstede's (1986) measures of uncertainty avoidance, individualism, masculinity, and power distance.
[19] Business obstacle measures come from the 2008 and 2009 World Bank Enterprise Surveys.
[20] All unreported results are available on request.

diminishes the level of trust of its nationals to Russians. As an exogenous shock, we use Orange revolution in Ukraine in 2004. Orange revolution included primarily nonviolent civil movements against government regimes that resulted in assignment of new government and was followed by strong anti-Russian rhetoric. Such rhetoric arguably resulted in diminishing trust of Ukrainians towards Russians. We focus on Ukrainian entrepreneurs who founded firms in Russia before the Orange revolution. Since due to visa restrictions non-managing foreign entrepreneurs typically live at home, we expect that Ukrainian entrepreneurs were also affected by changing social attitude in their home country and would decrease their trust in hired Russian managers.[21] We focus on seven Russian federal districts, which originally had equal trust with Ukraine: South, Central, Far East, North West, Siberia, Ural, and Volga. We expect that after the Orange revolution, Ukrainian entrepreneurs in these districts dropped from the same-trust zone to the under-trust zone due to their diminishing trust in Russians. We use Ukrainian entrepreneurs who founded firms in the above districts before 2005 as a treated group.[22] We also use a control group of same-trust firms from other countries located in the above districts. We further split our sample into firms with hired managers and firms with owner-managers. Ukrainian firms with owner-managers were affected by the same changes caused by Orange revolution as firms with hired managers, but were not affected by the change in trust to hired managers. Columns 11 and 12 of Table 7 demonstrates that after the Orange revolution Ukrainian firms with hired managers experienced a decline in firm performance, whereas the performance of Ukrainian firms with owner-managers did not decrease. This is consistent with our expectation that when firms with

[21] The majority of examined firms are young. Therefore, entrepreneurs and managers are unlikely to establish strong trusting relationships with each other on the personal level prior to the revolution.

[22] The other two candidate color revolutions in our observation window took place in Georgia and Kyrgyzstan. However, there were not good candidates for our test since all their firms were already in country-region pairs with under trust before the revolutions, whereas we needed country-region pairs that would switch from equal trust to under trust as a result of a revolution.

under-trusted hired managers have lower performance than firms where owners and managers have equal trust.

6 Discussion and Conclusion

In the past decade, the strategy and organization literature has extensively explored the value of top managers in organizations and demonstrated that managers can significantly influence firm strategies and performance (e.g., Bertrand, 2009; Mackey, 2008; Miller et al., 2013). Prior studies, however, have largely focused on the individual characteristics of the manager and have paid less attention to the relationships between a manager and a firm owner, particularly the social aspects of these relationships, such as mutual trust, gender differences, or cultural distance. In this paper, we have tried to address this gap and examine how the asymmetry of trust between an owner and a hired manager may affect firm performance.

We have divided hired managers into three groups: under-trusted managers, or managers whose level of trust is higher than that of the firm owner; over-trusted managers, or managers whose level of trust is lower than that of the owner; and hired managers with equal trust, or managers whose level of trust is equal to that of the owner. We have argued that under-trusted managers would have lower firm performance because they would feel frustrated and have lower work motivation. We have also expected that over-trusted managers may reduce firm performance if they act opportunistically or have no negative impact on profits if over-trust stimulates them to act in a trustworthy manner.

We have found that under-trusted hired managers have lower firm performance compared to other hired managers and owner-managers of similar firms. Small values of under-trust are particularly detrimental, presumably because a small deviation from equilibrium is not so

obvious and does not lead to sorting in managers who are less sensitive to under-trust and building formal control and cooperation mechanisms. Under-trusted managers also seem to perform worse in distant firms and in firms from cultures similar to Russian culture. This goes in line with our expectation that under-trust is most frustrating when communication between an owner and a manager is more difficult and when such under-trust comes from people of a similar culture. We have also found that over-trust is not associated with a significantly lower performance of hired managers, which suggests that over-trust may stimulate trustworthy, rather than opportunistic, behavior. Overall, our results would suggest that when not sure, it may be better for an owner to err on the side of over-trust, since extra trust seems to be less detrimental for the firm than not trusting a lack of thereof.

This paper has focused on the asymmetry of trust in entrepreneurial ventures as a convenient setting where we could find proxy variables for the owners' and managers' trust. One limitation of our study is that trust is measured on the country and region levels rather than on the individual level. While our measures reflect generalized trust of entrepreneurs of a given nationality and managers in a given region, they do not account for individual deviations from the regional baseline, which may add noise to our measures. Finding a setting with individual-level measures of trust may be a potential avenue for future work.

While we have used foreign entrepreneurs in Russia as a convenient setting that would allow us to more effectively measure trust, we expect that our findings could be generalized to a broader setting of foreign and domestic firms. First, a noticeable share of domestic entrepreneurs (30–50%) found firms outside of their home regions (e.g., Dahl and Sorenson, 2009; Michelacci and Silva, 2007). Since regions may also very in the levels of generalized trust, this would create direct similarities to the entrepreneurs who found firms abroad. Furthermore, we expect to see

the impact of under-trust in firms beyond the initial start-up stage, since we have found that the magnitudes of the observed effects remain very similar for larger and older firms. While we would welcome further 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. Our findings also open a broad avenue for potential future research. For example, it would be interesting to examine whether levels of trust come to equilibrium after owners and managers have worked together for a long time.

In addition to contributing to the top-management literature, our findings also speak to more general literature on the role of trust in business relationships. This literature has largely focused on unilateral trust and paid less attention to the potential asymmetries of trust between business actors (Zaheer and Zaheer, 2006). While our study has examined the role of the asymmetry of trust between an owner and a manager, trust asymmetries may arise in other business relationships, such as between alliance partners, between managers of headquarters and subsidiaries, between suppliers and buyers, and between managers and employees within organizations. Examining the role of trust asymmetry in those relationships could be another promising area for future research.

Finally, our findings contribute to the international strategy literature, which has long been interested in understanding the role of cultural and social distances, including trust, in international ventures (e.g., Muethel and Bond, 2013). Prior research has focused largely on two areas: understanding the origins of the cross-cultural differences in trust and determining how trust may affect inter-organizational relationships, such as international joint venture or supplier-buyer connections. The two areas that have received less attention are the role of trust within international organizations (e.g., Bloom et al., 2012) and the asymmetry of trust (see Zaheer and

Zaheer (2006) for review). Our findings inform both of these areas by demonstrating that cross-country asymmetries in trust may negatively affect the outcome of relationships within ventures.

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Table 1. Main Variables[a]

Variable	Description	Mean	Std. Dev.	Min.	Max	N Obs.
OROA	Ratio of operating profit (earnings before interest and taxes) to the book value of assets	0.014	0.337	-2.857	1.360	12,670
Hired manager	Equals 1 if one of the firm hired manager and zero otherwise	0.337	0.473	0	1	12,670
Home-country trust	Share of people who answered "Most people can be trusted" on the WVS in the entrepreneur's home country	0.361	0.155	0.06	0.70	12,670
Ln(home-country trust)	Natural log of the home-country trust	-1.138	0.532	-2.813	-0.357	12,670
Region of location trust	Share of people who answered "Most people can be trusted" on the WVS in the firm's district of location in Russia	0.396	0.138	0.18	0.51	12,670
Ln(region of location trust)	Natural log of the region of location trust	-1.002	0.406	-1.715	-0.673	12,670
Trust difference	Home country trust minus region of location trust	-0.034	0.187	-0.45	0.47	12,670
Under-trust	Equals 1 if trust difference <0	0.399	0.490	0	1	12,670
Over-trust	Equals 1 if trust difference >0	0.592	0.492	0	1	12,670
Equal trust	Equals 1 if trust difference = 0	0.009	0.095	0	1	12,670
Ln(assets)	Natural log of the book value of assets in Russian rubles	12.557	2.971	2.303	28.906	12,670
Ln(long debt)	Natural log of 1+long debt (in Russian rubles)	1.764	4.581	0	20.327	12,670
Shareholders	Number of shareholders	1.073	0.353	1	8	12,670
Ln(GDP)	Natural log of the GDP of the firm's country of origin, measured in U.S. dollars	5.883	1.938	-0.174	9.549	12,670
Ln(population)	Natural log of the population of the firm's country of origin	4.860	2.127	-0.288	7.181	12,670
Ln(distance)	Natural log of the distance in km from the entrepreneur's country of origin to the firm's location in Russia					11,501
Distance	Distance in km from the entrepreneur's country of origin to the firm's location in Russia	3,144	2084	167	12022	11,501
Number of employees	The number of employees (reported for 2003–2007)	22	48	1	487	5,805
Age	Firm age	2.565	2.661	0	15	12,670
Trust to Russians	Share of WVS respondents in the entrepreneur's home-country who trust Russians	0.278	0.158	0.21	0.67	5,430
Trust to foreigners	Share of WVS respondents in the firm's district of location in Russia who trust foreigners	0.377	0.039	0.31	0.45	12,115

a) The number of employees is available starting from 2003. All monetary values are in nominal Russian rubles. Inflation effect is captured by the year dummy variables in regression models. We removed outliers: the top and bottom 1 percent of observations on OROA. This removed observations with OROA above 1.5 and below -3.

Table 2. Main Correlations

	Variable	1	2	3	4	5	6	7	8	9
1	OROA	1.000								
2	Hired manager	0.005	1.000							
3	Under-trust	-0.018	0.155	1.000						
4	Over-trust	0.018	-0.162	-0.981	1.000					
5	Equal trust	0.001	0.040	-0.078	-0.116	1.000				
6	Ln(assets)	0.098	0.344	0.247	-0.256	0.049	1.000			
7	Ln(long debt)	-0.035	0.156	0.070	-0.075	0.025	0.337	1.000		
8	Shareholders	-0.026	0.088	-0.025	0.024	0.004	0.088	0.042	1.000	
9	Ln(GDP)	-0.035	-0.056	-0.179	0.204	-0.134	-0.197	-0.006	-0.159	1.000
10	Ln(population)	-0.040	-0.299	-0.347	0.366	-0.105	-0.384	-0.107	-0.182	0.775

Table 3. The Impact of Trust on the Probability of Hiring a Manager[a]

	(1)	(2)	(3)
Variables	Probit	Probit	Probit
Ln(home-country trust)	**0.181***		
	(0.101)		
Ln(location trust)		**-0.253**	
		(0.203)	
Under-trust			**0.110**
			(0.351)
Over-trust			**-0.148**
			(0.410)
Ln(assets)	0.080***	0.077***	0.077***
	(0.010)	(0.010)	(0.012)
Ln(long debt)	0.008	0.008	0.007
	(0.006)	(0.006)	(0.006)
Shareholders	0.126*	0.109*	0.141**
	(0.069)	(0.058)	(0.063)
Ln(GDP)	0.270***	0.283***	0.299
	(0.043)	(0.044)	(0.340)
Ln(population)	-0.302***	-0.278***	2.396
	(0.047)	(0.042)	(2.507)
Constant	-1.468***	-2.060***	-12.693
	(0.525)	(0.407)	(10.591)
Date dummies	yes	yes	yes
Industry dummies	yes	yes	yes
Region dummies	no	no	yes
Country dummies	no	no	yes
Pseudo R^2	0.159	0.160	0.227
N	3,844	3,844	3,844

a) Dependent variable is *hired manager* dummy variable. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Models include all firms.

Table 4. The Impact of Under-Trust and Over-Trust on the Performance of Firms with Hired Managers[a]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All firms	All firms	Equal trust	All firms	All firms	Under-trust & over-trust	Under-trust & over-trust
Variables	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Hired manager	-0.023***	-0.023***	0.030		0.092		-0.004
	(0.008)	(0.008)	(0.143)		(0.057)		(0.011)
HM*under-trust				**-0.045*** **	**-0.137** **	**-0.046*** **	**-0.042** **
				(0.014)	**(0.060)**	**(0.014)**	**(0.018)**
HM*over-trust				**-0.004**	**-0.096**	**-0.004**	
				(0.011)	**(0.057)**	**(0.011)**	
HM*equal trust				**0.092**			
				(0.057)			
Under-trust		0.013		0.087**	0.087**	0.027	0.027
		(0.031)		(0.040)	(0.040)	(0.025)	(0.025)
Over-trust		0.008		0.061	0.061		
		(0.032)		(0.042)	(0.042)		
Ln(assets)	0.015***	0.015***	0.064	0.015***	0.015***	0.015***	0.015***
	(0.003)	(0.003)	(0.047)	(0.003)	(0.003)	(0.003)	(0.003)
Ln(long debt)	-0.005***	-0.005***	-0.015***	-0.005***	-0.005***	-0.005***	-0.005***
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Shareholders	-0.040	-0.040	-0.489*	-0.040	-0.040	-0.040	-0.040
	(0.025)	(0.025)	(0.245)	(0.025)	(0.025)	(0.026)	(0.026)
Ln(GDP)	0.056	0.056	2.132	0.052	0.052	0.048	0.048
	(0.038)	(0.038)	(1.573)	(0.038)	(0.038)	(0.038)	(0.038)
Ln(population)	0.089	0.090	1.676	0.082	0.082	0.086	0.086
	(0.155)	(0.156)	(3.926)	(0.159)	(0.159)	(0.161)	(0.161)
Constant	-0.361**	-0.371**	-5.712	-0.429***	-0.429***	-0.885	-0.885
	(0.143)	(0.145)	(6.855)	(0.138)	(0.138)	(0.946)	(0.946)
Year dummies	yes	yes	yes	yes	yes	yes	yes
Date dummies	yes	yes	yes	yes	yes	yes	yes
Country dummies	yes	yes	yes	yes	yes	yes	yes
Industry dummies	yes	yes	yes	yes	yes	yes	yes
Region dummies	yes	yes	yes	yes	yes	yes	yes
R^2	0.059	0.059	0.610	0.060	0.060	0.060	0.060
N	12,670	12,670	116	12,670	12,670	12,554	12,554

a) *HM* stands for a hired manager. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Models 1, 2, 4, and 5 include all firms. Model 3 includes only firms with equal trust between a home country and a host region. Models 6 and 7 exclude firms with equal trust between a home country and a host region.

Table 5. Quartile Effect for Under-trusted Hired Managers[a]

	(1)	(2)
	Under-trust & equal trust	Under-trust only
Variables	OLS	OLS
Hired manager	0.081	**-0.112*** **
	(0.058)	**(0.020)**
HM*quartile 1	**-0.188*** **	
	(0.064)	
HM* quartile 2	**-0.115***	**0.078*** **
	(0.066)	**(0.022)**
HM* quartile 3	**-0.106**	**0.086***
	(0.070)	**(0.043)**
HM* quartile 4	**-0.080**	**0.112*** **
	(0.059)	**(0.021)**
Q1	0.023	
	(0.035)	
Q2	-0.033	-0.018
	(0.078)	(0.062)
Q3	-0.115	-0.100
	(0.120)	(0.097)
Q4	-0.069	-0.025
	(0.148)	(0.123)
Ln(GDP)	0.220	0.067
	(0.282)	(0.062)
Ln(population)	0.073	0.229
	(0.061)	(0.300)
Ln(assets)	0.016**	0.016***
	(0.003)	(0.003)
Ln(long debt)	-0.006***	-0.006***
	(0.001)	(0.001)
Shareholders	-0.083*	-0.085*
	(0.045)	(0.046)
Constant	-1.518	-1.688
	(1.550)	(1.629)
Year dummies	yes	yes
Date dummies	yes	yes
Country dummies	yes	yes
Industry dummies	yes	yes
Region dummies	yes	yes
R^2	0.082	0.082
N	5,171	5,055

a) *HM* stands for a hired manager. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Model 1 includes firms with under-trust and equal trust between home country and host region. Model 2 includes only firms with under-trust.

Table 6. Moderating Effects of Distance and Home-Country Culture[a]

	(1)	(2)
	Proximate owners	Distant owners
Variables	OLS	OLS
HM*under-trust	**-0.039****	**-0.100*****
	(0.015)	**(0.028)**
HM*over-trust	-0.006	0.116
	(0.012)	(0.128)
Under-trust	-0.003	-2.463***
	(0.026)	(0.771)
Ln(assets)	0.014***	0.010***
	(0.003)	(0.002)
Ln(long debt)	-0.005***	-0.003***
	(0.001)	(0.001)
Shareholders	-0.060*	n/a
	(0.031)	
Ln(GDP)	0.063	-0.596***
	(0.045)	(0.116)
Ln(population)	0.083	5.199**
	(0.177)	(1.954)
Constant	-1.041	-13.150*
	(0.960)	(6.023)
Year dummies	yes	yes
Date dummies	yes	yes
Country dummies	yes	yes
Industry dummies	yes	yes
Region dummies	yes	yes
R^2	0.058	0.191
N	10,590	808

a) *HM* stands for a hired manager. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Model 1 includes firms located less than 3,787 miles away from their owners' country. Model 2 includes firms located more than 3,787 miles away.

Note: χ^2 for the difference in coefficients for HM*under-trust between models 1 and 2 is 8.57, significant at 1%. The difference in coefficients for HM*under-trust is not significant.

Table 7. Robustness Checks[a]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Trust to Russians	Trust to Russians	Trust to Russians	Trust to foreigners in Russia	Trust to foreigners in Russia	Instrumenting for manager choice	Small firms	Larger firms	Younger firms	Older firms	Color revolution HM firms	Color revolution OM firms
Variables	Probit	OLS	OLS	OLS	OLS	2SLS	OLS	OLS	OLS	OLS	OLS	OLS
Ln(trust to Russians)	**1.114*** (0.413)**											
Hired manager			-0.094* (0.042)		-0.092* (0.043)							
HM*under-trust		**-0.257*** (0.023)**	**-0.163** (0.057)**	**-0.257*** (0.023)**	**-0.165** (0.059)**	**-0.554* (0.310)**	**-0.055*** (0.020)**	**-0.079*** (0.024)**	**-0.050*** (0.013)**	**-0.003 (0.047)**		
HM*over-trust		**-0.094* (0.042)**		**-0.092* (0.043)**		**-0.260 (0.263)**	**-0.022 (0.020)**	**-0.010 (0.018)**	**-0.008 (0.011)**	**0.007 (0.041)**		
Under-trust		-1.423 (0.975)	-1.423 (0.975)	-1.240 (1.133)	-1.240 (1.133)	0.111 (0.173)	0.050* (0.029)	-0.042 (0.047)	0.027 (0.022)	-0.048 (0.070)		
Ln(age)						0.026 (0.049)					-0.109 (0.166)	0.084** (0.037)
Ukraine*post2004											**-0.374** (0.102)**	**-0.117** (0.049)**
Constant	-0.191 (2.458)	-15.188 (17.953)	-15.188 (17.953)	-12.438 (20.628)	-12.438 (20.628)	-0.233 (0.186)	-0.226* (0.134)	0.648 (0.496)	-0.248 (0.153)	1.404 (2.147)	0.118 (0.152)	-0.400*** (0.126)
Control variables	Ln(assets), ln(long debt), shareholders, ln(GDP), ln(population)											
Date dummies	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	no
Year dummies	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Region dummies	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no
Industry dummies	yes	no	no	no	no	no	yes	yes	yes	yes	no	no
Country	no	yes	yes	yes	yes	no	yes	yes	yes	yes	no	no
Firm f.e.											yes	yes
R^2 / Pseudo R^2	0.377	0.167	0.167	0.166	0.166	0.031	0.096	0.239	0.064	0.164	0.073	0.232
F-test for excl. instr.						8.50***; 14.05***						
N	283	376	376	373	373	761	4,441	1,287	10,982	1,572	52	40

a) *HM* stands for a hired manager. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Models 1–3 include firms observed before 2001 that have home-country trust to Russians data. Models 4 and 5 include firms observed before 2001 that have home-country trust to Russians data and data on trust to foreigners in Russian districts. Model 6 includes non-NIS firms founded in Russia in 2005–2007. Model 7 includes firms with below-mean (<22) employees. Model 8 includes firms with 22 employees or more. Employment data are available after 2002. Model 9 includes firm younger than 5 years. Model 10 includes firms at 5 years or older. Firms with equal trust are dropped in Models 1–10 due to very small numbers. Models 11 and 12 include firms with same trust only.

Appendix 1

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 managers' names and owners' nationalities but not the owners' names.[23] However, we have observed that in the firms with complete information, 99.2 percent of hired managers have typical Russian names, whereas 99.0 percent 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 percent of cases.[24]

We used the above procedure to determined management status for 2,068 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 does 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 and compared them to the main findings. The findings remained very similar to the main sample (See Table A1 below).

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

[23] 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.
[24] Among the false cases, half were wrongfully identified as owner-managers, and half were wrongfully identified as hired managers.

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.[25] 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-ups seem unlikely to change management status so early in life. Indeed, prior literature suggests that entrepreneurial firms start switching manager type as they mature and undergo an IPO or acquisition (e.g., Wasserman, 2003). Additionally, when we limited our sample to the 2006 observation year, where we have an actual management status for all firms, the results were similar to our main findings (see Table A1).

[25] As a result, 55 percent of the firm-year observations have the actual management status; for 15 percent of observations the management status is lagged by 1 year; for 30 percent of observations the status is lagged by 2 years or longer.

Table A1. Sample Construction Tests[a]

	(1)	(2)
Variables	Excluding firms with missing owners' names	Year 2006
Hired manager	0.089	0.107
	(0.057)	(0.068)
HM*under-trust	**-0.158*** **	**-0.165** **
	(0.055)	**(0.076)**
HM*over-trust	**-0.094**	**-0.104**
	(0.059)	**(0.071)**
Under-trust	0.119**	-0.058
	(0.051)	(0.055)
Over-trust	0.099*	-0.041
	(0.057)	(0.050)
Ln(assets)	0.018***	0.021***
	(0.003)	(0.006)
Ln(long debt)	-0.005***	-0.006***
	(0.001)	(0.001)
Shareholders	-0.034*	-0.047
	(0.019)	(0.054)
Ln(GDP)	0.093*	0.118*
	(0.049)	(0.068)
Ln(population)	-0.084	-0.320
	(0.227)	(0.345)
Constant	-0.770	-2.221***
	(1.279)	(0.227)
Year dummies	yes	yes
Date dummies	yes	yes
Country dummies	yes	yes
Industry dummies	yes	yes
Region dummies	yes	yes
R^2	0.094	0.138
N	4,985	1,969

a) *HM* stands for a hired manager. Robust standard errors clustered on country are in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Samples: Model 1 excludes firms with missing owners' names. Model 2 includes firms in 2006 only, when complete management and ownerships information is available.

Appendix 2

Table A2. Distribution of Firms by Management Type and Country of Origin

Country	Owner-manager	Hired manager	Total
Algeria	2	1	3
Armenia	17	7	24
Australia	2	1	3
Azerbaijan	23	10	33
Bangladesh	17	1	18
Belarus	356	160	516
Bosnia and Herzegovina	12	3	15
Bulgaria	27	28	55
Canada	8	15	23
Chile	1	1	2
China	1,043	205	1,248
Colombia	1	3	4
Croatia	7	2	9
Cyprus	1	2	3
Czech Republic	9	14	23
Estonia	12	31	43
Finland	21	28	49
France	17	30	47
Georgia	10	4	14
Germany	44	94	138
Hungary	9	5	14
India	142	60	202
Indonesia	1	6	7
Israel	11	43	54
Italy	40	58	98
Japan	4	8	12
Kyrgyzstan	9	2	11
Latvia	16	48	64
Lithuania	14	26	40
Monaco	25	7	32
Netherlands	7	7	14
Nigeria	2	0	2
Norway	2	0	2
Pakistan	19	1	20
Poland	26	36	62
Slovakia	3	2	5
Slovenia	4	4	8
South Korea	30	24	54
Spain	6	5	11
Sweden	6	13	19
Switzerland	21	12	33
Taiwan	4	1	5
Turkey	289	125	414
Ukraine	92	78	170
United Kingdom	11	18	29
United States	19	81	100
Vietnam	50	29	79
Other countries	5	8	13
Total	2,497	1,347	3,844