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Are Founder CEOs Good Managers?

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4.1 Introduction

There is remarkable variation in the practices by which seemingly similar firms are managed (Bloom and Van Reenen 2007). Those differences have been attributed to a wide variety of industry, firm, and managerial characteristics including competitive pressure (Hermalin 1994; Bennett 2013), psychological traits (Galasso and Simcoe 2011; Malmendier and Tate 2005) or personal "style" of the CEO who leads the organization (Bertrand and Schoar 2003), and the ownership structure of the firm (Morck, Shleifer, and Vishny 1988).

In this chapter we study the adoption of basic management practices in firms in which the CEO of the firm and its founder are one and the same—which we define as "founder CEO" firms in what follows. While founder CEOs are typically portrayed as highly extrinsically and intrinsically motivated individuals (Jensen and Meckling 1976; Wasserman 2006), it is unclear whether they should necessarily serve as top managers of their firm. There are several reasons why founders may not be the best top managers. First, the skills needed to create a new venture may not necessarily coincide with the capabilities needed to lead the firm through more advanced phases of

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growth and expansion.[1] Furthermore, founder CEOs might be reluctant to adopt practices that standardize the operations of the firm, since these practices reduce the idiosyncratic and personalized aspects of the entrepreneur's role (Rajan 2012) and the private benefits of control associated with them (Bandiera, Prat, and Sadun 2013).

We investigate these issues using the World Management Survey (WMS), an international data set providing detailed information on the management practices for a large sample of medium and large manufacturing firms (Bloom et al. 2014; Bloom and Van Reenen 2007) in thirty-two countries. The management processes surveyed in the WMS are akin to managerial "best practices" and have been found to be strongly and causally related to superior firm performance (Bloom and Van Reenen 2007; Bloom et al. 2013; Bloom, Sadun, and Van Reenen 2016).

The WMS includes a large number of founder and nonfounder CEOs' firms of similar ages and sizes within the same industries and countries. Although we cannot estimate causal effects of being led by a founder CEO, the richness of the data allows us to examine the conditional correlation between management and the founder CEO status of the company while controlling for a large set of potentially confounding covariates suggested by theory and earlier empirical investigations such as firm age, size, average skills of the workforce, country of operation, and main industry of activity.

We start our analysis by reporting three main stylized facts. First, firms led by founder CEOs have lower management scores relative to other forms of concentrated and dispersed ownership. Second, the association between management and firm performance in founder CEO firms is positive and significant, similar to what is generally found for other ownership types. This positive association suggests both that the lower level of management quality in founder CEO firms is likely to result in worse firm performance and that lower management scores among founder CEO firms are not due to the fact that these firms have lower returns to management. Third, firms led by founder CEOs experience significant improvements in their management practices upon a change of ownership, and these improvements are generally much larger than what is found for other ownership transitions.

A natural question arising from these findings is: Why are firms led by founder CEOs not adopting performance-enhancing managerial processes or replacing themselves with managers who do? We present three not-necessarily-mutually-exclusive possible classes of explanations for the persistence of poor management practices at firms with founder CEOs despite the performance penalty: (a) that founder CEOs are unaware of their managerial gaps; (b) that environmental or institutional variables make it more

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1. This viewpoint is supported by the fact that venture capital firms and private equity firms frequently replace founders with professional managers (Hellmann and Puri 2002).

costly or less attractive for founder CEOs to hire more capable managers to replace themselves, or to select practices consistent with the process of standardization needed to attract external capital (Rajan 2012); and (c) that the adoption of formalized managerial processes may interfere with the founders' ability to pursue nonpecuniary benefits of control, such as investing in a pet project or hiring people based on personal or family affiliations. The initial findings presented in the chapter provide support for (a) and (c), but we do not find evidence that founder CEO firms are systematically different according to the quality of the institutional environments in which they are embedded.

Our findings face several limitations. First, the nature of the firms included in the WMS data (companies between 50 and 5,000 employees) significantly dampens our ability to analyze the role of founder CEOs on organizations in their early stages of life and/or managers in the early years of their tenure, which may both be more salient to the entrepreneurship literature. Second, the nature of our data does not allow us to estimate the *causal* effect of founder CEOs on management adoption and firm performance; rather, we present simple conditional correlations. Relatedly, the lack of information on CEO skills, preferences, and experiences does not allow us to look in more detail at the heterogeneity within different types of founder CEOs.

The chapter is structured as follows. In section 4.2 we provide a description of the WMS data. In section 4.3 we explore the differences in management practices between firms led by founder CEOs and firms and all other forms of leader-ownership. In section 4.4 we explore the relationship between management and firm performance. In section 4.5 we present the analysis of the possible drivers of the managerial differences across ownership types. Section 4.6 concludes.

4.2   Data

4.2.1   Survey Methodology

To measure the presence of basic management practices, we use the World Management Survey (WMS), which was collected using a methodology first described in Bloom and Van Reenen (2007). The survey is based on an interview-based evaluation tool that defines and scores from 1 ("worst practice") to 5 ("best practice") across eighteen key management practices. Appendix table 4A.1 lists the management questions and also gives some sense of how the responses to each question are mapped onto the scoring grid.[2]

The evaluation tool attempts to measure management practices in three

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2. For the full set of questions for each sector (manufacturing, retail, schools and hospitals), see www.worldmanagementsurvey.org.

key areas. First, *monitoring*: How well do organizations monitor what goes on inside the firm and use this information for continuous improvement? Second, *targets*: Do organizations set the right targets, track the right outcomes, and take appropriate action if the two are inconsistent? Third, *incentives/people management*: Are organizations promoting and rewarding employees based on performance, prioritizing careful hiring, and trying to keep their best employees?[3]

The methodology gives a firm a low score if it fails to track performance, has no effective targets, does not take ability and effort into account when deciding on promotions (e.g., completely tenure based), and has no system to address persistent employee underperformance. In contrast, a high-scoring organization frequently monitors and tries to improve its processes, sets comprehensive and stretching targets, promotes high-performing employees, and addresses (by retraining/rotating and, if unsuccessful, dismissing) underperforming employees.

The survey design included teams of MBA-type students with business experience conducting the interviews with the plant managers in their native languages. Plant managers were purposely selected, as they were senior enough to have an overview of management practices but not so senior as to be detached from day-to-day operations. The survey is based on a double-blind methodology. First, managers were not told they were being scored or shown the scoring grid. They were told only that they were being "interviewed about their day-to-day management practices." To do this, the interviewers asked open-ended questions[4] and continued with open questions focusing on specific practices and trying to elicit examples until the interviewer could make an accurate assessment of the firm's practices.[5] Second, the interviewers were not told anything in advance about the organization's performance; they were provided only with the organization's name, telephone number, and industry.

The data set includes randomly sampled medium-sized firms (employing between 50 and 5,000 workers) in the manufacturing sector. The sampling

3. These practices are similar to those emphasized in earlier work on management practices, by, for example, Osterman (1994), Ichniowski, Shaw, and Prennushi (1997), and Black and Lynch (2001).

4. For example, on the first monitoring dimension in the manufacturing survey, the interviewer starts by asking the open question "Could you please tell me about how you monitor your production process?" rather than a closed question such as "Do you monitor your production daily [yes/no]?"

5. For example, the second question on that monitoring dimension is "What kinds of measures would you use to track performance?" rather than "Do you track your performance?" and the third is "If I walked around your factory, what could I tell about how each person was performing?" The combined responses to the questions within this dimension are scored against a grid that goes from 1, which is defined as *Measures tracked do not indicate directly if overall business objectives are being met. Tracking is an ad hoc process (certain processes aren't tracked at all)*, to 5, which is defined as *Performance is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools.*

frame was drawn in such a way that the firms sampled for each country are representative of the distribution of medium-sized manufacturing firms across a variety of different databases. The survey achieved a response rate of about 50 percent through a combination of government endorsements and internal managerial efforts. Reassuringly, responses were uncorrelated with the (independently collected) performance measures for the firm (see Bloom et al. 2014 for details).

The data set also includes a series of "noise controls" on the interview process itself (such as the time of day and the day of the week), characteristics of the interviewee (such as tenure in firm), and the identity of the interviewer (a full set of dummy variables for the interviewer to account for any interviewer bias). In some specifications we include these variables to control for measurement error. The data was also internally validated through silent monitoring of the interviews (whereby a second person listening in on a phone extension independently scored the interview), and repeat interviews (using a different interviewer and a second plant manager within the same firm). In both cases, the comparisons suggested a high level of consistency across different interviewees and interviewers (see Bloom et al. 2014 for details).

4.2.2 Ownership

Firms are classified in several different ownership categories using information collected during the survey and are subsequently cross checked against public accounts and Web searches. This process first determines whether any individual person, group of individuals, or organization owns more than 25.01 percent of the shares of the company. If this is not the case, the firm is classified as owned by "dispersed shareholders." If a single group of individuals or organization owns more than 25.01 percent of the shares of the company, the firm is subsequently classified in the following categories according to the nature of the controlling individuals/organization: "founder" (the owner coincides with the person who founded the firm); "family" (the owner/s are affiliated with the family of the firm's founder); "private equity"; "private individuals"; "managers"; and "government." The firm is classified in the "other" category if the ownership type does not match any of the above categories (this typically happens for country-specific ownership types, such as foundations in Germany). When a founder or a family owns the firm, we further distinguish between the cases in which the CEO is the founder him/herself or is affiliated with the owning family.

In what follows, we will focus most of the discussion on the difference between firms that are owned and run by a founder CEO, which represent in total 18 percent of the sample, and all the other types of ownership. Table 4.1 presents a detailed breakdown of the frequencies of founder CEO firms included in the sample according to their ownership type across the thirty-two countries included in the sample. Clearly, founder CEO firms are much more likely to be found in developing countries relative to more

Table 4.1   **Firm ownership across countries**

Sample	All	All other ownership	Founder CEO
Argentina	566	471	95
Australia	470	442	28
Brazil	1,145	754	391
Canada	418	368	50
Chile	543	471	72
China	761	601	160
Colombia	170	114	56
Ethiopia	131	90	41
France	610	571	39
Germany	608	592	16
Ghana	107	54	53
Greece	272	222	50
India	921	529	392
Italy	310	252	58
Japan	172	168	4
Kenya	184	134	50
Mexico	524	424	100
Mozambique	85	59	26
New Zealand	149	135	14
Nicaragua	97	77	20
Nigeria	118	55	63
Poland	364	330	34
Portugal	311	252	59
Republic of Ireland	161	127	34
Singapore	373	308	65
Spain	213	194	19
Sweden	377	369	8
Tanzania	150	102	48
Turkey	332	173	159
United Kingdom	1,332	1,225	107
United States	1,393	1,267	126
Zambia	68	46	22
Total	**13,435**	**10,976**	**2,459**

developed economies—the fraction of founder CEO firms across Organisation for Economic Co-operation and Development (OECD) economies is 11 percent versus 30 percent in non-OECD countries.[6] Therefore, in our analysis we will primarily examine within-country comparisons in order to allay the concern that the differences in management practices across firms may capture unobserved country characteristics.

6. This fact is not surprising given that many founder CEO successions are associated with growth milestones (Wasserman 2003), and developing economies have many more small firms (Hsieh and Olken 2014).

Table 4.2   **Summary statistics**

	Total (1)	All other ownership (2)	Founder CEO (3)	(2)–(3), p-value (4)
Sample				
Management	2.873	2.952	2.518	0.434***
	(0.678)	(0.669)	(0.600)	(29.63)
Operations	2.941	3.037	2.515	0.522***
	(0.764)	(0.750)	(0.678)	(31.70)
People	2.736	2.783	2.524	0.259***
	(0.653)	(0.656)	(0.593)	(18.00)
Firm employment	850.382	952.282	395.753	556.5***
	(3,821.212)	(4,205.027)	(778.492)	(6.53)
Plant employment	270.084	280.909	223.831	57.08***
	(410.197)	(427.679)	(321.067)	(6.09)
Firm age	48.463	52.266	25.297	26.97***
	(42.500)	(44.469)	(11.769)	(20.34)
MNE status	0.404	0.476	0.088	0.388***
	(0.491)	(0.499)	(0.283)	(36.56)
Skills	15.068	15.637	12.644	2.993***
	(16.893)	(17.147)	(15.536)	(7.58)
Observations	13,436	10,977	2,459	

Notes: Table is calculated with simple averages. Column (4) indicates that the differences in raw averages between founder CEOs and all other ownership are significant at the 1 percent level across all variables. MNE status is an indicator variable equal to 1 if the firm is a multinational. Skills measures the proportion of firm employees (managers and nonmanagers) with a college degree. Management is the average management score based on responses to the eighteen categories assessed in the WMS (Bloom and Van Reenen 2007). Operations is the average management score for the set of questions associated with monitoring and target practices. People is the average management score for the set of questions associated with HR practices within the firm.

***Significant at the 1 percent level.

4.3   Management Practices in Founder CEO Firms

4.3.1   Cross-Sectional Analysis

In this section we examine the differences in management practices across different ownership types, focusing, in particular, on firms owned and managed by their founder.

Table 4.2 shows summary statistics for the overall sample and the raw comparisons between founder CEO firms and the rest of the ownership categories. The first three rows of table 4.2 show that founder CEO firms on average appear to be much less likely to have adopted the basic managerial practices included in the WMS. This gap is significant when we consider the overall management score, as well as when we distinguish between the operational questions (*monitoring* and *target setting*) and the *people management*
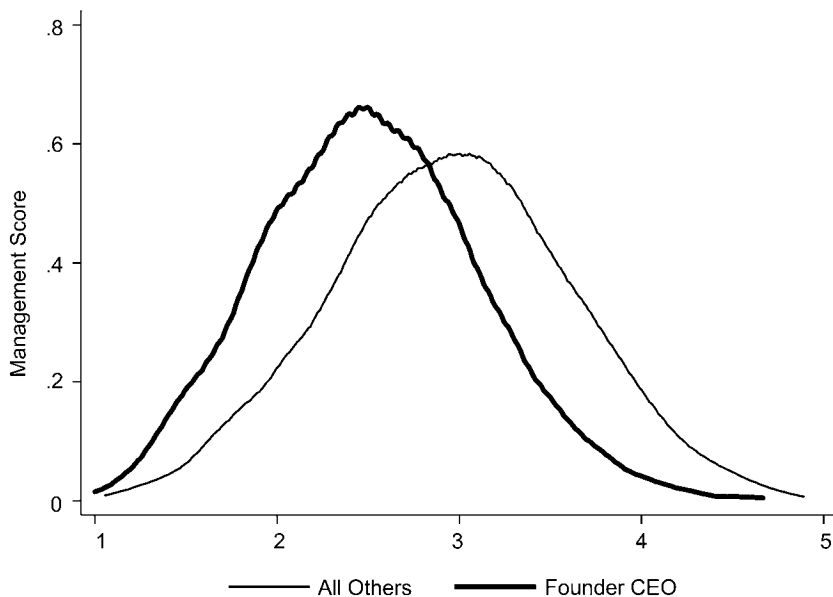
Fig. 4.1   Kernel density plot of management scores for founder CEO firms and all other ownership types

questions asked in the survey.[7] Looking beyond sample means, figure 4.1 presents a kernel density plot of management scores for founder CEO firms and firms with other ownership types. The graph shows that the lower average is not due to a tail of firms with low management bringing down the average, but rather that the entire mass of the distribution is shifted to the left.

Clearly, management is not the only dimension along which founder CEO firms differ from the other ownership types included in the WMS. Although the criteria for inclusion in the management survey skew the distribution toward larger firms, it is still the case that founder CEO firms are smaller and younger than the other firms in the sample. Founder CEO firms are also less likely to be part of a domestic or foreign multinational and have, on average, a smaller fraction of employees with a college degree. To understand the extent to which the differences in management scores between founder CEO

7. The gap in management scores between founder CEO firms and other ownership types is still evident when we use a more granular ownership classification. Figure 4A.1 in the appendix plots the raw average management scores across the finer ownership classifications introduced in section 4.2.2. Founder CEO firms have the lowest average management scores even relative to the second-lowest category, family firms managed by a family CEO. The difference between the two types of ownership is significant at the 1 percent level, and remains so even when we control for country and industry (three-digit SIC) fixed effects.

firms versus other ownership types can be accounted for by these observable firm characteristics—which are typically associated with differences in management practices (e.g., Bloom, Sadun, and Van Reenen 2016)—in table 4.3 we show the conditional correlation between management and the founder CEO dummy controlling for a progressively larger set of controls (standard errors clustered at the firm level are shown in parentheses under the coefficients). To the extent that these differences are endogenous to ownership, the resulting estimates will provide a lower bound to the causal effect of the founder CEO dummy.

The dependent variable in all regressions presented in table 4.3 is the firm-level average management score, aggregated across all questions and standardized. Column (1) shows that the relationship between lower management scores and founder CEOs is significant when comparing firms within countries. The difference is large (0.608 of a standard deviation) and significant at the 1 percent level. Column (2) adds industry (Standard Industrial Classification [SIC] three-digit dummies) and log firm employment to control for size and the different distribution of founder CEO firms across sectors. Since larger firms tend to be better managed on average, adding firm size reduces the magnitude of the coefficient on the Founder CEO dummy from 0.412 to 0.254, but it remains significant at the 1 percent level. In column (3) we add a control for the log of firm age to verify the extent to which the management gap may be driven by firm age, which table 4.2 shows to differ significantly across ownership types. Even looking across firms of a similar age, the founder CEO dummy remains of a similar magnitude and significance. In column (4) we add controls for fraction of employees (managers and nonmanagers) with college degrees and multinational status, two variables that are empirically correlated with higher management scores and are systematically less prevalent in founder CEO firms. As a result, the coefficient on the founder CEO dummy is almost halved, becoming 0.162, but the coefficient remains significant at the 1 percent level. Finally, in column (5), our baseline specification going forward, we add a set of interview noise controls including interviewer identity and length of the interview. In this specification, the magnitude of the coefficient on the founder CEO dummy lowers to 0.138. Finally, because of evidence that developed countries have higher management practices, on average, in columns (6) and (7) we look at differences across non-OECD and OECD countries and find the results to be remarkably similar, and statistically indistinguishable, across the two subsets.

Overall, the multivariate analysis shows the existence of a managerial gap in founder CEO firms relative to other ownership types that is not fully accounted for by differences in firm country of location, industry of activity, firm size, age, or skills. Using the estimates from table 4.3, columns (1) and (5), the analysis reveals that observable firm, industry characteristics, and interview noise are able to account for about 67 percent of the

Table 4.3   Founder CEO management

Sample	All (1)	All (2)	All (3)	All (4)	All (5)	Non-OECD (6)	OECD (7)
Founder CEO	-0.412***	-0.254***	-0.266***	-0.162***	-0.138***	-0.128***	-0.148***
	(0.022)	(0.021)	(0.021)	(0.021)	(0.019)	(0.025)	(0.031)
Ln(firm employment)		0.23***	0.235***	0.194***	0.176***	0.179***	0.175***
		(0.008)	(0.008)	(0.008)	(0.007)	(0.011)	(0.010)
Ln(firm age)			-0.063***	-0.038***	-0.041***	-0.015	-0.043***
			(0.013)	(0.013)	(0.012)	(0.036)	(0.013)
Skills				0.133***	0.120***	0.138***	0.106***
				(0.007)	(0.006)	(0.009)	(0.009)
MNE status				0.364***	0.325***	0.341***	0.319***
				(0.019)	(0.017)	(0.029)	(0.021)
Constant	0.711***	-1.843***	-1.613***	-1.924***	-3.894***	-3.667***	-2.375***
	(0.097)	(0.112)	(0.121)	(0.119)	(0.623)	(0.195)	(0.606)
Observations	13,436	13,436	13,436	13,436	13,436	4,877	8,559
Adjusted R-squared	0.182	0.287	0.289	0.337	0.450	0.477	0.367
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	No	Yes	Yes	Yes	Yes	Yes	Yes
Firm employment	No	No	Yes	Yes	Yes	Yes	Yes
Firm age	No	No	Yes	Yes	Yes	Yes	Yes
Skills	No	No	No	Yes	Yes	Yes	Yes
MNE status	No	No	No	Yes	Yes	Yes	Yes
Noise	No	No	No	No	Yes	Yes	Yes

Notes: Dependent variable is the management z-score. All columns estimated by ordinary least squares (OLS) with standard errors clustered at the company level (due to inclusion of a subset of panel firms). Columns (1)–(5) use the entire sample for estimation; columns (6) and (7) repeat specification (5) for non-OECD and OECD countries separately. Country controls are a full set of country dummies for the countries in which the headquarters of each firm is located (which may be different from the country in which the interviewed plant manager is located for the case of multinational firms). Industry controls are SIC three-digit dummies. Firm employment, firm age, skills, and MNE status are included and described in table 4.1. Noise controls include the duration of the interview and an indicator for the specific person conducting the interview.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

within-country difference between founder CEO firms and other forms of ownership ((0.412 – 0.138) / 0.412), with the rest still being captured by the founder CEO dummy. To further explore the extent to which other unobservable firm characteristics—rather than founder CEO ownership and control—may account for this remaining gap, we turn to analyzing changes in management over time across different types of ownership.

4.3.2   Panel Analysis

About 2,844 firms included in the WMS were interviewed more than once over time and, of these, 905 also experienced a change in ownership type. Of these, 167 (of the 487 total founder CEO firms in the subsample of 2,844 firms) classified as founder CEO firms in their first appearance in the WMS data set transition to a different form of ownership. In this section, we exploit this specific sample with panel management data to further explore the extent to which the managerial gap examined in section 4.3.1 can be traced back to founder CEO ownership, rather than to other unobservable fixed firm characteristics.

More specifically, we examine whether firms that where initially (i.e., at the time of their first appearance in the WMS data) owned and managed by their founder and experienced a change in ownership before their subsequent appearance in the WMS data saw an improvement in their management scores relative to firms that did not experience an ownership change. Ownership changes are likely to be endogenous—firms are typically acquired on the basis of unobservable characteristics, including their productivity or potential for improvement. Therefore, to control for the possibility that the postacquisition management scores might reflect dynamics unrelated to the change in ownership, we set up this comparison using a difference-in-difference approach, comparing the change in management scores experienced by initial founder CEO firms transitioning to other ownership types (167 firms) to the change in management scores experienced by firms that were initially classified in other ownership categories and also experienced a change in ownership (738 firms).

The identification assumption underlying this comparison is that the unobserved factors leading to an ownership change in founder CEO firms are similar to those leading to an ownership change in other types of firms. To gauge the empirical relevance of this assumption, we investigated the relationship between a dummy capturing the ownership change between two distinct waves of the WMS and a basic set of firm-level controls. Reassuringly, the results (presented in table 4A.2) show that changes in ownership are not significantly correlated with the initial level of management in both types of transitions, nor with firm size. However, firm age and multinational enterprise (MNE) status both appear to be positively and significantly correlated with changes in ownership for founder CEO firms, but not for the other ownership types. Therefore, while we do not find evidence that founder CEO

firms undergoing an ownership change are differentially selected on the basis of their overall management scores relative to other ownership types, we cannot entirely rule out differential selection based on other observable firm characteristics, which may be associated with future changes in management.

With this caveat in mind, we report the graphic result of the difference-in-difference in figure 4.2. The bars show the change in management score between two periods, t (the first time a firm appeared in the WMS) and $t + 1$ (the last time a firm appeared in the WMS), for four classes of firms. On the left-hand side of the graph, we focus on firms that at time t were *not* owned by a founder CEO and distinguish between those that at $t + 1$ had not experienced an ownership change (far left bar in the graph, 1,619 firms), and those that had experienced an ownership change (second bar from the left, 738 firms). The left-hand-side comparison indicates that there is no significant change in the management scores for firms initially classified in the nonfounder CEO category, regardless of ownership changes. On the right-hand side of the graph, we repeat the same classification for firms that were at time t classified as founder CEO firms, and distinguish between
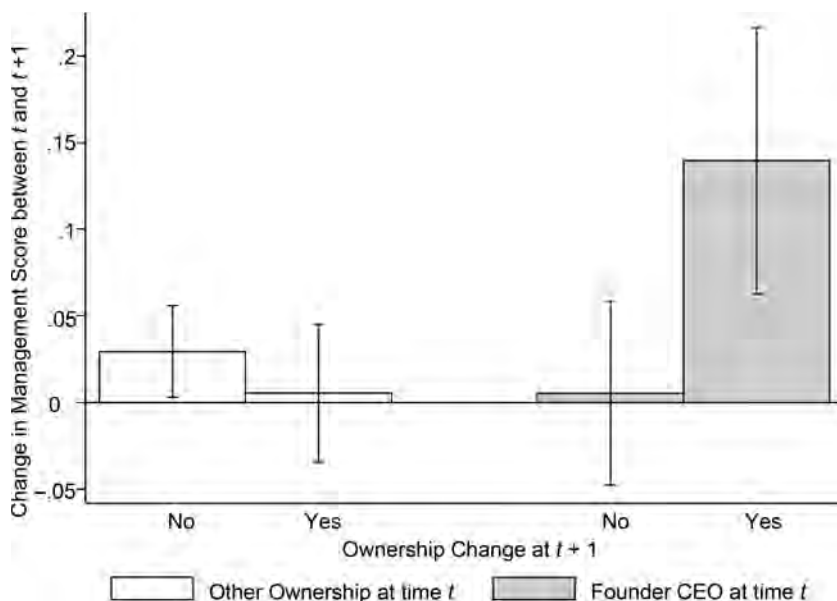
Fig. 4.2   Changes in management score based on ownership changes

Notes: The graph shows average change in management score for each of four categories of ownership observed in the WMS panel data set: nonfounder CEO firms with no change in ownership (1,619 firms), nonfounder CEO firms with a change in ownership (738), founder CEO firms with no change in ownership (320), and founder CEO firms with a change in ownership (167). The error bar values denote 5 percent confidence intervals for each category.

those that remained classified as such at time $t + 1$ (third bar in the graph, 320 firms), and those that instead had transitioned to a different ownership type at time $t + 1$ (far right bar in the graph, 167 firms).

The graph shows that while the average change in management score between t and $t + 1$ is not distinguishable from zero for founder CEO firms that did not experience a change in ownership, those firms that began with a founder CEO and had transitioned to a different ownership type by $t + 1$ experienced a significant increase in their management score.

Although the graph is based on raw data, these results are robust to the inclusion of country and industry dummies, firm characteristics, and interview noise, as shown in table 4.4. Just like in figure 4.2, the dependent variable in all columns of table 4.4 is the raw change in the average management score between t and $t + 1$. In column (1), we include as dependent variables only country dummies and an indicator for whether the ownership status

Table 4.4   **Impact of ownership changes on management scores**

	Change in management score				
Dependent variable	(1)	(2)	(3)	(4)	(5)
Ownership change	0.016	0.015	–0.017	–0.015	–0.001
	(0.028)	(0.028)	(0.031)	(0.032)	(0.032)
(Initial) founder CEO		0.046	–0.016	–0.015	0.011
		(0.031)	(0.038)	(0.040)	(0.041)
Ownership change * (initial)			0.171***	0.153**	0.190***
founder CEO			(0.064)	(0.066)	(0.066)
Constant	–0.060	–0.069	–0.060	–0.083	–0.897***
	(0.047)	(0.048)	(0.048)	(0.051)	(0.225)
Observations	2,844	2,844	2,844	2,844	2,844
Adjusted R-squared	0.008	0.009	0.010	0.016	0.083
Country dummies	Yes	Yes	Yes	Yes	Yes
Industry dummies	No	No	No	Yes	Yes
Firm employment	No	No	No	No	Yes
Firm age	No	No	No	No	Yes
Skills	No	No	No	No	Yes
MNE status	No	No	No	No	Yes
Noise	No	No	No	No	Yes

Notes: Dependent variable is the change in management score between the first and the last time a firm was interviewed for the WMS. Therefore, only firms who have been administered the survey two or more times are included in this estimation. All columns are estimated using OLS and robust standard errors. Ownership change is an indicator variable equal to 1 if an ownership change occurred between the first and last time the focal firm was interviewed for the WMS. (Initial) founder CEO is equal to 1 if the firm had founder CEO ownership the first time the WMS was administered and equal to 0 otherwise.

***Significant at 1 percent.

**Significant at 5 percent.

*Significant at 10 percent.

changed. The results suggest that change in ownership *per se* is not associated with a significant change in management practices. In column (2), we add an indicator for whether the ownership type was founder CEO in period *t*, and we find that the coefficient is positive but statistically insignificant, suggesting that founder CEO firms overall did not experience large improvements in management between the two time periods. In column (3), we include an interaction between the indicators for having a founder CEO in period *t* and a change in ownership prior to time *t* + 1. This positive and significant coefficient shows that firms that used to be owned and run by their founder experience large gains in their management score when these firms experience a change in ownership prior to time *t* + 1. The magnitude of the coefficient in the interaction is 0.171, which is 28 percent of the standard deviation in founder CEO score and significant at the 1 percent level. The magnitude and significance of the coefficient is robust to the inclusion of industry dummies (column [4]), and other firm and noise controls (column [5]), including the dummy capturing MNE status and firm age.

Overall, these results suggest that the differences in management scores discussed in section 4.2 are tightly related to the identity of the CEO, rather than being driven by unobserved characteristics of the firms led by founder CEOs. To further illustrate this point, in figure 4.3 we break down the changes observed in founder CEO firms at time *t* + 1 according to the detailed type of ownership at time *t* + 1. The average change in management scores is positive across all transitions. Interestingly, the largest change appears when the founder remains the main owner of the firm but an external manager takes the top position. This suggests that it is the presence of the founder in an active operational role in the company that potentially dampens management adoption, rather than founder ownership *per se*.

4.4   Does Management Matter in Founder CEO Firms?

A growing body of research has documented the presence of large and significant performance implications for the managerial practices investigated in the WMS (Bloom et al. 2013, 2014; Bloom and Van Reenen 2007). However, one possible explanation behind the managerial gap explored in section 4.3 is that formalized managerial processes might be relatively less important for the performance of founder CEO firms. For example, founder CEOs might be able to substitute for formalized practices with other unobservable managerial skills, such as their charisma, connections, or intrinsic motivation.

We investigate this issue in table 4.5, where we estimate a simple production function—log sales as a function of the total number of employees, capital, and materials, all drawn from published accounts drawn from the accounting database ORBIS using the following specification:
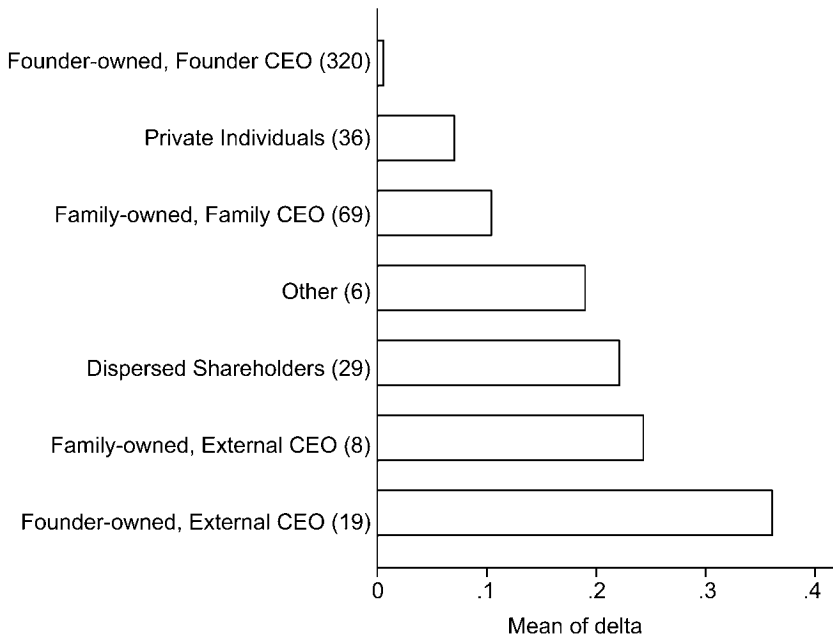
Fig. 4.3   Changes in management score for firms originating with founder CEOs

Notes: The graph shows the change in management score for firms that were surveyed more than once in the WMS data and were owned and managed by founder CEOs in the first survey wave in which they appeared. The bars display the average change in management score for each type of ownership transition, indicated in the last observation in the WMS data (as well as the changes in management score for those founder CEO firms that experienced no transition—the first row). The number of observations of each type of transition (as well as the nontransition group) is shown in parentheses next to the ownership type.

$$y_{itsc} = \alpha \text{FounderCEO}_{it} + \beta \text{Management}_{it}$$
$$+ \gamma \text{FounderCEO}_{it} * \text{Management}_{it}$$
$$+ F_{it}\theta + \delta e_{it} + \vartheta m_{it} + \mu k_{it} + \zeta_s + \tau_t + \rho_c + \varepsilon_{itsc},$$

where y, e, m, k represent the natural logarithm of, respectively, firm-level sales, employment, materials, and capital; F the set of firm-level controls employed in earlier tables; and ζ_s, τ_t, and ρ_c denote industry, time, and country fixed effects. Since we use repeated cross sections for each firm, errors are clustered at the firm level across all columns. The key parameter in this specification is γ, which allows us to evaluate whether the relationship between management and performance is systematically different for founder CEO firms relative to other ownership types.

Column (1) shows that founder CEO firms tend, on average, to be 9.4 percent less productive than other ownership types (the coefficient is significant at the 5 percent level). Column (2) adds to the specification the average man-

Table 4.5   **Performance of founder CEO firms**

Dependent variable	Ln(sales) (1)	Ln(sales) (2)	Ln(sales) (3)	Change in ln(sales) (4)	ROCE (5)	ROA (7)
Founder CEO	–0.094**	–0.082*	–0.079*	–0.000	–0.174	14.310
	(0.046)	(0.045)	(0.044)	(0.009)	(0.979)	(59.670)
Management		0.093***	0.092***	0.006**	1.035***	52.259**
		(0.015)	(0.015)	(0.002)	(0.356)	(22.746)
Founder CEO * management			0.006	0.001	–0.658	–68.110
			(0.048)	(0.007)	(0.728)	(43.172)
Ln(firm employment)	0.628***	0.616***	0.616***		1.500***	65.538**
	(0.023)	(0.023)	(0.023)		(0.440)	(27.632)
Ln(materials)	0.226***	0.224***	0.224***		1.149***	52.683**
	(0.014)	(0.014)	(0.014)		(0.374)	(24.274)
Ln(capital)	0.246***	0.240***	0.240***		–1.008***	3.456
	(0.016)	(0.015)	(0.015)		(0.336)	(20.129)
Change in ln(firm employment)				0.417***		
				(0.026)		
Change in ln(materials)				0.518***		
				(0.019)		
Change in ln(capital)				0.151***		
				(0.013)		
Constant	2.902***	3.078***	3.076***	–0.068	0.173	–1956.993
	(0.295)	(0.290)	(0.290)	(0.084)	(10.420)	(1684.996)
Observations	9,203	9,203	9,203	8,902	7,677	8,720
Adjusted R-squared	0.807	0.810	0.810	0.388	0.100	0.089
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Firm employment	Yes	Yes	Yes	Yes	Yes	Yes
Firm age	Yes	Yes	Yes	Yes	Yes	Yes
Skills	Yes	Yes	Yes	Yes	Yes	Yes
MNE status	Yes	Yes	Yes	Yes	Yes	Yes
Noise	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The sample used for this table includes only those firms for which sales, employment, capital, ROCE, and ROA data could be found in ORBIS and other databases. All columns are estimated using OLS and standard errors clustered at the firm level.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

agement score which, consistent with earlier research, appears to be positive and strongly correlated with productivity (coefficient 0.093, standard error 0.015). This result also shows that, although differences in management are able to account for about 13 percent of this difference (0.094 – 0.082 / 0.094), the founder CEO dummy remains statistically significant at the 10 percent level. In column (3) we introduce the founder CEO * management interaction to test for differential slopes by ownership types. We find the interaction to be small and positive, though statistically insignificant at conventional

levels. This basic finding is confirmed in columns (4), (5), and (6), where we look, respectively, at one-year log changes in sales, ROCE, and ROA as alternative outcome variables.

Overall, we find no support for the hypothesis that management might be a less critical factor in firms led by their founders relative to other ownership types.

4.5   Why do Founder CEO Have Low Management Scores?

The persistence of founder CEOs using weaker management practices in light of the positive performance associated with management is a puzzle. If founder CEOs have a stake in the financial performance of the organization, it seems that they would be better served by either adopting performance-enhancing practices or by replacing themselves with professional managers.

In this section, we explore some of the reasons why we might observe this nonadoption of management practices among founders. First, we investigate whether the managerial gap explored in section 4.3 might be due to *informational* constraints, that is, founder CEOs might simply not know or not be able to recognize the added value of the practices we investigate. Second, founder firms may arise in situations where the incentive to adopt these practices and standardize the business practices of the organization might be dampened by the institutional constraints in which the firms are embedded (Rajan 2012). Third, founders might resist the adoption of formalized management practices because they derive nonmonetary benefits of control (Hamilton 2000; Moskowitz and Vissing-Jørgensen 2002) and perceive these processes as a potential obstacle to the pursuit of possible private benefits. We explore these non-mutually-exclusive arguments below.

4.5.1   Informational Constraints

One potential explanation for the wide heterogeneity in adoption of performance-enhancing management practices across firms might be due to problems of *perception*—that is, founders may underestimate the practices' effect on productivity or overestimate the degree to which they are being implemented in practice (Gibbons and Henderson 2011).

To investigate whether the perception problem might be a possible explanation of the managerial gap documented across founder CEO firms, we exploit a self-reported measure collected at the end of the WMS survey in which managers assess the quality of their own practices on a scale from 1 to 10.[8] Figure 4.4 plots the average standardized WMS scores associated with the manager self-assessed scores (generated using a nonparametric lowess estimator overlaid onto the scatter plot of values) for both founder CEO

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8. The exact wording of the question is: "Ignoring yourself, how well managed do you think the rest of the company is on scale: 1 to 10, where 1 is worst practice, 10 is best practice, and 5 is average?"
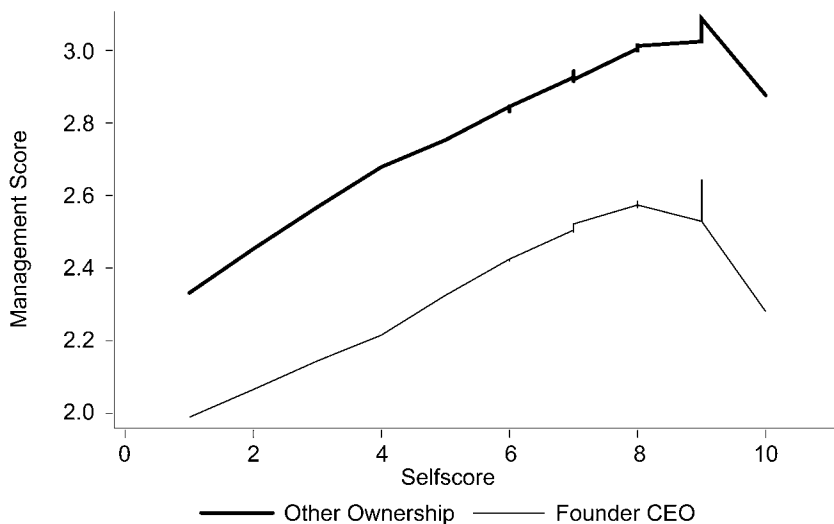
Fig. 4.4   Manager self-score of firm management compared with WMS management score

Note: The graph shows the result of a lowess estimator of self-responses of the interviewed plant manager when asked to indicate his/her impression of firm management (on a scale of 1–10) as compared to the management score derived from the WMS interview.

firms and the other ownership types. The self-assessed own-firm management score and the one obtained through the WMS interviews are positively correlated for all but the highest level of self-assessment, where true score trends down slightly in both cases. Interestingly, however, managers at founder CEO firms tend to systematically overestimate how well managed their firm is—the same level of self-score maps into a systematically lower level of actual management score for founder CEO firms.[9]

To look in more detail at the relationship between actual and self-assessed scores across ownership types, we define an "awareness" metric in the following way. First, we categorize each firm according to its quintile in the actual management score distribution within its country. Second, we do the same for the self-assessed management quality by country. Third, we define a variable taking values as follows: –1 if the difference between the actual and self-assessed quintile is less than –1, indicating that the manager systematically underestimated the relative quality of his or her firm's management quality; 0 if the difference in the quintiles is between –1 and 1 (included), if the self-assessment was relatively accurate; and 1 if the difference between

9. Because the phrasing of the question rules out the manager evaluating his/herself, these results do not seem to be consistent with personal overconfidence. The results may be consistent with hiring policies resulting in less experienced managers or with weak performance monitoring policies that result in managers having a weak idea of what works, however.

Table 4.6   **Own-firm management self-assessment by ownership type**

	Total	All other ownership	Founder CEO
Underconfidence	3,775	3,448	327
	30.16%	33.90%	13.93%
Realism	7,112	5,608	1,504
	56.81%	55.14%	64.08%
Overconfidence	1,631	1,115	516
	13.03%	10.96%	21.99%
Total	12,518	10,171	2,347
	100%	100%	100%

Notes: Table includes raw number of firms for which underconfidence, realism, and overconfidence were detected in the interviewed plant manager's self-assessment of his/her firm's management. To collect the self-score, managers were asked on a scale of 1–10 how they perceived their firms' management proficiency. This data was subsequently divided into quintiles, as were the WMS management scores, separately. Underconfidence is classified as having a self-assessment quintile value at least 2 quintiles lower than the actual management score of the firm. Realism is assigned to a firm if the interviewed manager's self-score of the firm's management is within 1 quintile (above or below) the actual management score for the firm. Lastly, Overconfidence is a result of a managerial self-score of at least 2 quintiles higher than the firm's WMS management score. Along with the raw number of firms, the percentage of the total firms is included for all firms and, separately, founder CEO firms and firms under all other forms of ownership.

the actual and self-assessed quintile is greater than 1, indicating the manager systematically overestimated the relative quality of his or her firm's own management quality. Table 4.6 summarizes the values of this variable across different ownership types. Overall, about 57 percent of the managers appear to have a relatively good idea of where their firm stands in terms of management. About 30 percent seem to underestimate their firm's relative standing, while 13 percent overestimate their firm's management quality relative to the actual scores. The distribution of the scores across these three categories of managers, however, is systematically different across ownership types. More specifically, founder CEO firms tend to have a larger fraction of firms that overestimate (22 percent vs. 11 percent) or have a realistic assessment (64 percent vs. 55 percent) of their scores and a much smaller fraction that underestimate their scores (14 percent vs. 34 percent).

To see whether these differences in awareness might be able to account for the differences in scores documented in section 4.3, we include the "awareness metric" in the specification calculated in table 4.3, column (5), and test whether the inclusion of this metric has any sizable effect on the coefficient measuring the founder CEO dummy effect. The results of this exercise are shown in table 4.7. We start with a baseline specification in column (2) where we simply show that the coefficient on the founder CEO dummy is still negative and significant and of similar size in the sample of firms for which the

Table 4.7 Accounting for awareness of management quality on management

Sample	All (1)	All (2)	All (3)	Non-OECD (4)	Non-OECD (5)	OECD (6)	OECD (7)
Founder CEO	-0.138***	-0.125***	-0.093***	-0.125***	-0.106***	-0.122***	-0.068**
	(0.019)	(0.019)	(0.017)	(0.025)	(0.023)	(0.030)	(0.026)
Ln(firm employment)	0.176***	0.172***	0.137***	0.180***	0.148***	0.169***	0.132***
	(0.007)	(0.007)	(0.007)	(0.011)	(0.010)	(0.010)	(0.009)
Ln(firm age)	-0.041***	-0.033***	-0.024**	-0.013	-0.015	-0.034**	-0.023**
	(0.012)	(0.012)	(0.011)	(0.037)	(0.032)	(0.013)	(0.012)
Ln(skills)	0.120***	0.123***	0.095***	0.139***	0.114***	0.111***	0.083***
	(0.006)	(0.006)	(0.006)	(0.009)	(0.009)	(0.009)	(0.008)
MNE status	0.325***	0.337***	0.258***	0.342***	0.271***	0.336***	0.259***
	(0.017)	(0.017)	(0.015)	(0.029)	(0.025)	(0.022)	(0.018)
Awareness			-0.650***		-0.563***		-0.698***
			(0.011)		(0.017)		(0.014)
Constant	-3.894***	-4.110***	-3.352***	-3.694***	-2.955***	-2.827***	-2.119***
	(0.623)	(0.712)	(0.540)	(0.196)	(0.180)	(0.623)	(0.445)
Observations	13,436	12,518	12,518	4,827	4,827	7,691	7,691
Adjusted R-squared	0.450	0.467	0.592	0.478	0.579	0.392	0.549
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm employment	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm age	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Skills	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MNE status	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Noise	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Dependent variable is the management z-score index. All columns estimated by ordinary least squares (OLS) with standard errors clustered at the company level (due to inclusion of a subset of panel firms). Columns (1)–(3) use the entire data set whereas columns (4)–(7) test the effect of managerial awareness in non-OECD and OECD countries, respectively.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

self-assessment metric is available (column [2] compared to column [1]).[10] In column (3) we add the awareness metric—which reduces the coefficient on the founder CEO dummy by about 25 percent (from 0.125 to 0.093), but the coefficient is still sizable and significant at the 1 percent level. In columns (4) to (7) we repeat the same experiment for firms in non-OECD (columns [4] and [5]) and OECD countries (columns [6] and [7]). In both cases, the coefficient on the founder CEO dummy remains negative and significant; however, the reduction in its coefficient when the awareness variable in included is much larger in OECD countries (46 percent vs. 15 percent).

Overall, these results suggest that the lower managerial scores of founder CEO firms are associated with managers' systematic lack of awareness of the weakness of their firms' management quality (especially in OECD countries), but this lack of self-awareness does not fully explain the management gap that we find for founder CEOs relative to other ownership types.

4.5.2   Institutions

In this section we explore whether inefficient institutions may be a possible driver of the lower managerial scores of founder CEO firms. The potential role of institutions in shaping the incentive to adopt formalized managerial practices can best be seen in terms of the framework proposed by Rajan (2012) to investigate when and to what extent founders will have the incentive to "standardize" their business practices, that is, to establish processes that "reduce the idiosyncratic and personalized aspects of the entrepreneur's role." This set-up is useful since the processes considered by Rajan encompass several of the managerial practices included in the WMS; for example: (a) formalizing implicit agreements with employees, (b) spreading the allocation of responsibilities across functions so that they can be more easily managed by outsiders, and (c) introducing strategic planning and information systems so that the information that a CEO needs to make decisions is more easily available.

One of the key insights of Rajan's framework is that the standardization decision creates a fundamental tension for the founder. On one hand, standardization might be necessary to attract external capital. Potential backers may see these practices as tools through which the human capital in the firm, particularly the CEO, becomes more replaceable, reducing risk by making the firm more amenable to external control. On the other hand, the founder might resist standardization precisely because it makes his or her personal human capital less critical and more easily substituted by an external CEO. In this setup, the founder is encouraged to adopt these "standardized" practices to gain access to capital markets. If capital markets are not well developed, the rewards associated with standardization will be reduced for

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10. The smaller sample is due to the fact that the self-assessment question was introduced in the 2006 WMS wave, whereas the whole sample started being collected in 2004.

the founder, hence reducing the incentive to incur the loss of personal rents associated with it. For this reason, institutions that support liquid capital markets may, by extension, support the adoption of superior management practices in founder-owned ventures.

Institutions might also have an impact on the standardization decisions even in absence of the need to raise capital through the market. For example, delegation to other talented managers able to guide the firm through the standardization process might be prohibitively costly in countries with poor contractual enforcement (Bandiera, Pratt, and Sadun 2013). These costs might be based on objective constraints—that is, heightened risk of expropriation—or subjective perceptions of the associated risks—that is, lack of trust (Bloom, Sadun, and Van Reenen 2012). Therefore, institutions that lower the costs of contractual enforcement or foster generalized trust may lower the costs of adopting superior management practices.

To investigate these issues we estimate the following model:

$$\text{Management}_{itsc} = \alpha \text{FounderCEO}_{it} + \beta \text{FounderCEO}_{it}$$

$$* S_c + F_{it}\theta + \zeta_s + \tau_t + \rho_c + \varepsilon_{itsc}.$$

Our coefficient of interest is β, which captures the differential effect of different country-specific institutional variables (measured in the country in which the firms' central headquarters [CHQ] are located)[11] for founder CEO firms. If institutions play any role in shaping the adoption of formalized management practices, we would expect $\beta > 0$, meaning that the gap between founder CEO firms and other forms of ownership would be smaller in more efficient institutional environments.[12]

We also investigate differences across different types of management practices covered by the WMS, by estimating this regression for the overall management score, and separately for the operations (all questions referring to *monitoring* and *target* practices) and *people* (all the questions pertaining to HR management practices) sections of the survey. We are specifically interested in practices related to managing people as they may most directly shape the founder's ability to retain control over the company. For example, introducing more formalized human resources (HR) may limit the founder's ability to promote family and friends to positions of power and, more generally, to use promotions to reward personal loyalty (Bandiera, Prat, and Sadun 2013).

The results of this analysis are shown in table 4.8 (we cluster the standard

11. Headquarters is the level at which the institutional constraints are more likely to influence the decision to adopt management practices (see Bloom et al. [2013] for a similar application). An alternative approach would be to match the plant with the institutional variable measured in the country in which the plants are located. The results shown in this section are virtually unchanged when we use this alternative approach.

12. Note that all regressions include country dummies. Therefore, we do not estimate the linear correlation between country-level institutions and management, but their differential correlation across founder CEO firms and other ownership types.

Table 4.8   Impact of institutional context on founder CEO management

Dependent variable	Management (1)	Operations (2)	People (3)	Management (4)	Operations (5)	People (6)	Management (7)	Operations (8)	People (9)	Management (10)	Operations (11)	People (12)
Founder CEO	-0.131***	-0.120***	-0.020	-0.156***	-0.141***	-0.030**	-0.130***	-0.118***	-0.021	-0.129***	-0.121***	-0.013
	(0.021)	(0.016)	(0.014)	(0.019)	(0.016)	(0.012)	(0.021)	(0.017)	(0.013)	(0.021)	(0.016)	(0.014)
Founder CEO * ln(GDP per capita)	0.006	0.002	0.002									
	(0.009)	(0.009)	(0.005)									
Founder CEO * (accounting standards)				-0.000	-0.001	0.001						
				(0.002)	(0.002)	(0.001)						
Founder CEO * (rule of law)							0.000	0.000	0.000			
							(0.001)	(0.001)	(0.000)			
Founder CEO * trust										0.118	0.008	0.186
										(0.189)	(0.146)	(0.117)
Constant	-3.735***	-2.785***	-1.796***	-3.483***	-2.724***	-1.376***	-3.746***	-2.795***	-1.797***	-3.736***	-2.786***	-1.796***
	(0.347)	(0.261)	(0.205)	(0.382)	(0.304)	(0.231)	(0.342)	(0.259)	(0.203)	(0.347)	(0.261)	(0.204)
Observations	12,386	12,386	12,386	10,888	10,888	10,888	12,386	12,386	12,386	12,386	12,386	12,386
Adjusted R-squared	0.451	0.438	0.332	0.436	0.420	0.328	0.451	0.438	0.332	0.451	0.438	0.333
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm employment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Skills	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MNE status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Noise	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: All columns estimated by ordinary least squares (OLS) with standard errors clustered at the level of the country in which the firm's CHQ is located. Each interaction variable is tested in three columns with three different standardized dependent variables: overall management score, operations management score, and people management score. The GDP per capita is drawn from the World Bank Development indicators, measured in the country in which the firm headquarters is located. Similarly, accounting standards is used as a proxy for financial development in the country where the firm headquarters is located (Rajan and Zingales 1998). Rule of law is drawn from the World Bank's Doing Business Survey. Trust is derived from the World Values Survey, and denotes the percent of people answering "yes" to the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful?"

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

errors at the CHQ country level throughout). We start in columns (1)–(3) by using, as a rough measure of institutional quality, the log of gross domestic product (GDP) per capita (purchasing power parity [PPP] adjusted and expressed in constant 2005 USD). The interaction founder CEO * ln(GDP per capita) is not significant across any of the columns. We obtain similarly insignificant results by following Rajan and Zingales (1998) in using a variable capturing differences in standards of financial disclosures by country as a proxy for the founder's ability to attract external capital, which is necessary to providing the incentive to standardize. Similarly, the interaction between the founder CEO dummy and a variable capturing the overall quality of the Rule of Law (Kaufmann, Kraay, and Mastruzzi 2011) in columns (7)–(9) and a measure of generalized trust developed from the World Values Survey (World Values Survey Association 2008) in columns (10)–(12) are also all statistically insignificant.

In conclusion, we fail to find evidence that development, or more specifically the quality of the institutional environment in which firms operate, has a role in explaining the relative gap in management practices of founder CEO firms. This finding holds for the overall management score, as well as the score relating to people management practices.

4.5.3   Private Benefits of Control

As mentioned above, a possible reason for the lack of adoption of formalized management practices across founder CEO firms is that standardization may directly dissipate the personal rents that the founder enjoys by being at the helm of his or her organization. For example, Hurst and Pugsley (2011) found that over 50 percent of new business owners reported nonpecuniary benefits as a reason for starting their businesses, citing reasons like "wanting flexibility over schedule" and "to be one's own boss" as of first-order importance for their choices.[13]

Unfortunately, we do not have information on the different *individual* preferences of the managers included in the WMS sample. Our approach is to instead investigate whether the adoption of management practices varies according to differences in *societal* preferences. A primary candidate for this type of exercise is the strength of family values in the country where the firm's central headquarters are located. Using an index derived from several questions included in the World Values Survey,[14] Bertrand and Schoar

13. That is consistent with Bennett and Chatterji's (2015) finding that 58 percent of people who considered starting a business did so because they wanted to "be [their] own boss, turn a hobby into a job, or control [their] own schedule."

14. Bertrand and Schoar (2006) used principal component analysis to combine the answers to five family-related questions into a single index. The questions include (a) general importance family in life, (b) parental respect by children, (c) parental duty to their children, (d) importance of obedience as a quality in children, and (e) importance of independence as a quality in children. We use the same index as a proxy for family values.

(2006) show that the strength of family values is highly correlated with the fraction of family firms—including founder CEO firms—in the economy and in general with the organizational structure of firms. In our setting, we hypothesize that strong family values may create an incentive for founder and family CEOs to select and reward employees on the basis of family affiliations rather than through potentially more objective merit-based HR processes, whose adoption is measured in our management index.

We investigate this idea in table 4.9, by including in our baseline regression an interaction between the Family Values Index and the founder CEO dummy. The interaction between the strength of family values and the founder CEO dummy is negative, as expected, but statistically insignificant when we look at the overall management score (column [1]). Interestingly, however, the insignificance is entirely driven by the operations questions of the survey. When we focus the index on the *people* section of the survey— that is, the type of practices that are likely to have a more direct effect on the ability to employ family members as employees—in column (3), we find that stronger family values are associated with significantly lower management scores for founder CEO firms.

In the subsequent columns of table 4.9 we investigate this result further by looking at its sensitivity with respect to the inclusion of additional country controls and examining various subsamples of the data. In column (4) we simply repeat the specification adding as controls other relevant country characteristics (log GDP per capita and trust) and their interaction with the founder CEO dummy, to check whether the proxy for family values might capture other salient country characteristics. The coefficient on founder CEO * family values is reduced by about 30 percent, but it remains large and statistically significant at the 10 percent level.

Because a great deal of research has investigated the impacts of family CEOs (e.g., Villalonga and Amit 2006), and in fact often conflate founder CEOs with family CEOs (Wasserman 2003), in column (5) we add to the specification an interaction between a dummy denoting family CEOs (i.e., CEOs that are affiliated to the founding family, but belong to later generations relative to the founder) and its interaction with family values. While the management scores of family CEO firms also appear to be lower in countries with strong family values, differently from founder CEO firms, the interaction is not statistically significant.

In line with Rajan (2012), we explore whether the relevance of family values varies according to the nature of the industry in which the firm operates. In particular, we would expect family values to play a relatively smaller role in industries with high external financial dependence (defined as in Rajan and Zingales [1998]). It is in these industries where the need to raise external capital is likely to dominate the personal returns to private control. In line with this hypothesis, in columns (6) and (7) we show that founder

Table 4.9   People management in founder CEO firms

	All					Low external capital dependence	High external capital dependence
Sample	Management (1)	Operations (2)	People (3)	People (4)	People (5)	People (6)	People (7)
Founder CEO	-0.131***	-0.123***	-0.012	-0.011	-0.038***	-0.024	-0.004
	(0.022)	(0.018)	(0.011)	(0.013)	(0.013)	(0.017)	(0.023)
Founder CEO * family values	-0.017	0.012	-0.053**	-0.044*	-0.067***	-0.089***	-0.040
	(0.047)	(0.037)	(0.021)	(0.025)	(0.022)	(0.021)	(0.041)
Family CEO					-0.086***		
					(0.015)		
Family CEO * family values					-0.031		
					(0.019)		
Founder CEO * ln(GDP per capita)				0.001			
				(0.005)			
Founder CEO * trust				0.049			
				(0.126)			
Constant	-3.734***	-2.787***	-1.790***	-1.791***	-1.746***	-0.817***	-1.357***
	(0.348)	(0.261)	(0.206)	(0.205)	(0.201)	(0.262)	(0.270)
Observations	12,386	12,386	12,386	12,386	12,386	5,862	5,006
Adjusted R-squared	0.451	0.438	0.333	0.332	0.334	0.292	0.341
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm employment	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm age	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Skills	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MNE status	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Noise	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable in columns (1) and (2) are, respectively, the overall management *z*-score and the operations *z*-score. The dependent variable in columns (3)–(7) is the people management *z*-score. All columns estimated by ordinary least squares (OLS) with standard errors clustered at the level of the country in which the firm's CHQ is located. Columns (6) and (7) split the sample according to the Rajan and Zingales financial dependence variable (below and above the sample median). Family values is derived from the World Values Survey as described in Bertrand and Schoar (2006) and measured in the country in which the firm headquarters is located. The GDP per capita is drawn from the World Bank Development indicators, measured in the country in which the firm headquarters is located. Rule of law is drawn from the World Bank's Doing Business Survey. Trust is derived from the World Values Survey, and denotes the percent of people answering "yes" to the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful?"
***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

CEO * family values interaction is significant only in industries with low external financial dependence.[15]

While these measures are proxies, rather than direct measures of non-pecuniary benefits, overall, these results provide suggestive evidence that different considerations besides pure profit maximization—for example, the value provided by foregoing objective HR processes to hire a family member or a friend in the firm—may play a role in explaining the relatively low adoption of management practices across founder CEO firms, especially with respect to processes aimed at formalizing HR processes for employee selection, reward, and retention.

4.6 Conclusion

We find evidence that firms led by founder CEOs are significantly less likely to implement basic management practices, even if these practices are associated with better firm performance. We explore the reasons for the differential adoption. Specifically, we investigate three potential causes: (a) that founders do not perceive their firms to have a management gap, (b) that the institutional environment dampens the incentive to implement superior practices, and (c) that nonpecuniary benefits from control counterbalance the lost rents from those worse practices. We find support for both (a) and (c).

The results shown in this chapter are broadly consistent with an emerging literature emphasizing the heterogeneity in growth and motivation of entrepreneurial firms (Hurst and Pugsley 2011; Mullins and Schoar 2013; Bennett and Chatterji 2015) and with managerial studies focusing on the positive association between structured management practices and performance across start-ups (Dávila, Foster, and Jia 2010). We extend this literature by providing additional evidence of the managerial practices adopted by founder CEO firms and their relationship with country-specific cultural norms, such as family values, across a wide range of countries and industries.

This chapter contributes to the existing literature on the performance of founder CEO firms. In contrast to our chapter, several studies report a positive effect of founder CEOs on firm performance (Adams, Almeida, and Ferreira 2009; Fahlenbrach 2009). One possible reason for this discrepancy results from the type of firms used in the analysis. While this chapter includes a wide range of private and public firms across several countries, the positive effect of founder CEOs is typically derived from the analysis of samples of public US enterprises, which may have implemented standardized manage-

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15. We also investigated whether the presence of strong family values could affect the returns to management practices by repeating the performance regressions from table 4.5, including an interaction term management * family values. We find no evidence of a lower return associated with management practices in countries where family values are higher (see table 4A.3 in the appendix).

ment practices in order to be able to raise external capital (Rajan 2012) or, more generally, be positively selected relative to representative founder CEO firms.

The persistent managerial gap of founder CEO firms described in this chapter suggests that government-sponsored programs aimed at fostering entrepreneurial activity may face significant challenges in delivering growth. In particular, our results suggest that—in order to be effective—financial support provided to new enterprises may need to be coupled with effective policies aimed at improving the managerial capabilities of founders and a better understanding of their motivations.

Unfortunately, a paucity of data on key differences in CEO skills, experience, preferences, and ability prevent us from exploring in further detail the mechanisms through which founder CEO status affects management practice adoption. We see this as a promising area for further research.
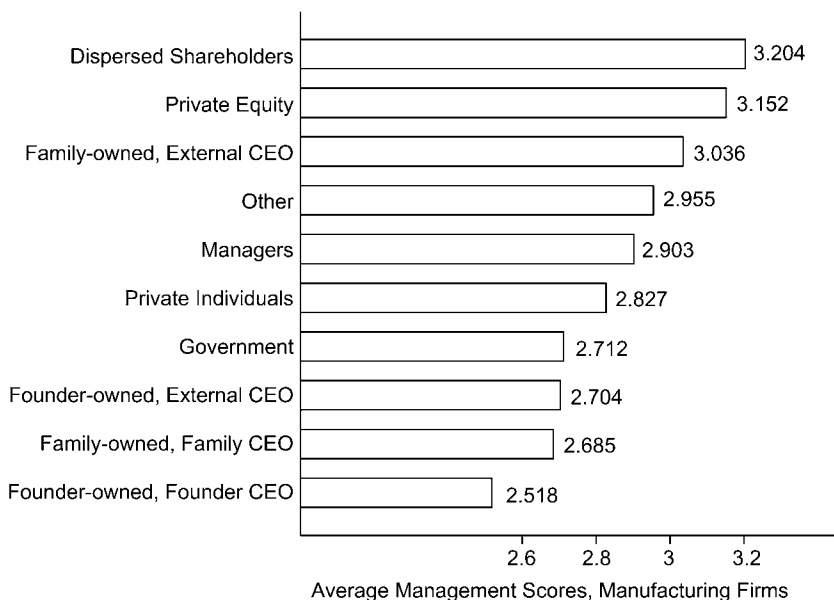
Appendix

Fig. 4A.1   Management scores across ownership types

Table 4A.1   Survey questions

Practices	What we are measuring?
Operations management and performance monitoring	
Introducing lean (modern) techniques	Measures how well lean (modern) manufacturing management techniques have been introduced
Rationale for introducing lean (modern) techniques	Measures the motivation/impetus behind changes to the operational processes, and whether a change story was well communicated, turning into company culture
Continuous improvement	Measures attitudes toward process documentation and continuous improvement
Performance tracking	Measures whether firm performance is measured with the right methods and frequency
Performance review	Measures whether performance is reviewed with appropriate frequency and follow-up
Performance dialogue	Measures the quality of review conversations
Consequence management	Measures whether differing levels of firm performance (not personal but plan/process based) lead to different consequences
Target setting	
Target balance	Measures whether targets cover a sufficiently broad set of metrics and whether financial and nonfinancial targets are balances
Target interconnection	Measures whether targets are tied to the organization's objectives and how well they cascade down the organization
Time horizon of targets	Measures whether the firm has a "three-horizons" approach to planning and targets
Target stretch	Measures whether targets are based on a solid rationale and are appropriately difficult to achieve
Clarify and comparability of targets	Measures how easily understandable performance measures are and whether performance is openly communicated to staff
Talent management	
Managing talent	Measures what emphasis is put on overall talent management within the organization
Rewarding high performers	Measures whether there is a systematic approach to identifying good and bad performers and rewarding them proportionately
Removing poor performers	Measures how well the organization is able to deal with underperformers
Promoting high performers	Measures whether promotion is performance based and whether talent is developed within the organization
Retaining talent	Measures whether the organization will go out of its way to keep top talent
Creating a distinctive employee value proposition	Measures the strength of the employee value proposition

Note: Survey instruments with full set of questions asked are available at: www.worldmanagementsurvey.org.

Table 4A.2　　　　　　**Factors correlated with ownership changes**

Dependent variable	Dummy = 1 if firm experiences a change in ownership between two survey waves, t and $t + 1$		
		Firms classified as founder CEO at time t	Firms classified as different ownership at time t
	All		
Sample	(1)	(2)	(3)
Management score (t)	–0.018	–0.055	–0.008
	(0.014)	(0.036)	(0.015)
Ln(firm employment) (t)	0.013	0.034	0.014
	(0.008)	(0.025)	(0.008)
Ln(firm age) (t)	–0.009	0.139**	–0.003
	(0.013)	(0.062)	(0.013)
Skills (t)	–0.006	0.022	–0.011
	(0.008)	(0.018)	(0.009)
MNE status (t)	0.008	0.229***	–0.009
	(0.019)	(0.070)	(0.020)
Constant	0.118	–0.052	0.024
	(0.116)	(0.334)	(0.145)
Observations	2,844	493	2,351
Adjusted R-squared	0.131	0.143	0.156
Country dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Noise	Yes	Yes	Yes

***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 4A.3   **Returns to management for different strength of family values**

Dependent variable	Ln(sales) (1)	ROCE (2)	ROA (3)
Family Values Index	–0.190*	–0.329	–362.284
	(0.104)	(3.626)	(242.689)
Management	0.077***	0.700*	27.214
	(0.019)	(0.392)	(25.130)
Family Values Index * management	–0.023	–0.226	–9.652
	(0.026)	(0.532)	(33.069)
Ln(firm employment)	0.636***	1.270**	54.603*
	(0.024)	(0.505)	(30.905)
Ln(materials)	0.207***	0.859*	30.412
	(0.015)	(0.440)	(28.882)
Ln(capital)	0.226***	–0.625	19.019
	(0.016)	(0.385)	(22.390)
Constant	3.108***	–14.062	155.132
	(0.290)	(9.580)	(836.400)
Observations	7,760	6,327	7,281
Adjusted R-squared	0.808	0.084	0.080
Industry dummies	Yes	Yes	Yes
Firm employment	Yes	Yes	Yes
Firm age	Yes	Yes	Yes
Skills	Yes	Yes	Yes
MNE status	Yes	Yes	Yes
Noise	Yes	Yes	Yes

Notes: The sample used for this table includes only those firms for which sales, employment, capital, ROCE, and ROA data could be found in ORBIS and other databases. All columns are estimated using ordinary least squares (OLS) and standard errors clustered at the firm level. The Family Values Index is taken from Bertrand and Schoar's (2006) survey of family values by country of CHQ location.

***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

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