Dysfunctional Family Management

Family-Managed Businesses and the Quality of Management Practices

Asif M. Islam
Roberta Gatti

WORLD BANK GROUP

Abstract

Better managed firms perform better. Existing evidence has shown that family-managed firms have poorer management practices. Several reasons have been proposed. Limiting to family members reduces the talent pool of potential managers. Family management creates disincentives for other talented workers given that the environment is not meritocratic. Family managers themselves may be less motivated given that they may not have to compete for the position. This study scales up the evidence by exploring the relationship between family managers and management practices for about 9,000 medium and large firms across 41 developing and advanced economies. The study contributes to the literature by investigating several internal and external operating factors that attenuate or accentuate the relationship between family management and the quality of management practices. The engagement of governments in terms of corruption and political connections is found to be influential.

Dysfunctional Family Management: Family-Managed Businesses and the Quality of Management Practices

Asif M. Islam and Roberta Gatti[1]

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[1] Roberta Gatti is the Chief Economist of the Middle East and North Africa region at the World Bank. Asif M. Islam is a Senior Economist in the Chief Economist Office of the Middle East and North Africa at the World Bank. The opinions expressed in this paper do not represent the views of the World Bank Group, its Board of Directors, or the Governments they represent. All errors and omissions are the authors' responsibility.

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I.   Introduction

Firms are a crucial engine of economic growth. How these businesses are managed will determine how they perform. The seminal work by Bloom and Van Reenen (2007) initiated a large literature that documented the positive effects of good management practices. Firms that are better managed are more productive, have higher operating profits, are more outward oriented, and invest more in research and development (Bruhn et al., 2018; Bloom et al., 2019; see Scur et al., 2021 for a summary). The productivity of skilled labor may also increase (Gosnell et al., 2020). The firms are also more likely to train their workers (Islam and Gatti, 2023). Experimental research has validated these findings with rigorous identification strategies (Bloom et al., 2013a; Bloom et al., 2020).

Family managed firms are expected to have poorer management practices (see Tsoutsoura, 2021 for a review of the recent literature). There are number of reasons for this.[2] First, choosing managers only within the family restricts the talent pool of potential managers, increasing the chances that family-managed firms will miss out on better quality managers (Bennedsen et al., 2007; Bloom and Van Reenen, 2007). Second, family members that are expected to become managers of the family firm may have disincentives to work hard given that they will attain the position regardless of effort. Thus, the lack of competition creates disincentives to excel. Villalonga and Amit (2006) find that in descendant-CEO firms - where the CEO is from the family but is not the founder - the conflict between family and nonfamily shareholder firms is more costly than the owner-manager conflict in nonfamily firms. Third, other managers or workers may view this form of nepotism unfavorably, thereby discouraging their effort, and creating incentives for them to work elsewhere. There is also the possibility of family conflicts playing out, that could demotivate employees. There could be reasons to expect the opposite – family management could resolve the classic agency problem between owners and managers (Jensen and Meckling, 1976; Fama, 1980). Owners may find it easier to monitor family members who are managers, and thus the family CEOs are unlikely to deviate from the principal's objectives. However, the existing empirical evidence has largely pointed to family-managed businesses having poorer management practices. Bloom et al (2015) show that family-run

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[2] https://hbr.org/2011/03/family-firms-need-professional.

firms do tend to have poorer management practices for a sample of 10,000 public and private sector manufacturing firms across 35 economies. Lemos and Scur (2019) also find a similar relationship in a sample of 2,710 firms across 18 economies and implement an instrumental variable identification strategy for 912 firms.

We build on this literature by using unique data from the 2019 EBRD-WIB-World Bank Enterprise Surveys (WBES). This data has a special module on family-managed firms and political connections on top of the comprehensive information on internal and external operating environment of businesses found in the regular World Bank Enterprise Surveys. These surveys were rolled out across a similar timeframe (2018-2019) for developing and advanced economies across Europe, the Middle East and North Africa, and Mongolia. The module defines our sample and enables this study to make a unique contribution by examining the relationship between family managers and management practices for a set of economies, many of which have not been explored before. This study additionally contributes to the literature by leveraging the surveys to uncover firm characteristics and business environment factors that may strengthen or weaken the effects of family management on management practices.

For around 9,000 medium and large firms across manufacturing and service sectors in 41 countries, we largely confirm the findings of Bloom et al (2015) that family management is negatively correlated with the quality of management practices. This is an important finding given the differences of our sample – we explore both manufacturing and service firms, while Bloom et al (2015) only study manufacturing firms. Our sample also consists of firms in Eastern Europe and the Middle East and North Africa that are largely omitted in the Bloom (2015) sample.

The extensive nature of the WBES allows us to enrich the analysis in several ways. First, the surveys collected information on the share of managers that are family, providing some nuance on whether any family management or all family management is detrimental to management practices. We find evidence towards the latter. Second, the surveys allow for the exploration of whether certain factors either exacerbate or alleviate the negative relationship between family managers and the quality of management practices. These include a range of internal and external operating factors. Third, the surveys allow us to explore specifically what types of management practices are lacking in family-run businesses. Finally, the surveys provide information that describes the nature of family run businesses.

This study uncovers the following key findings. First, family management is negatively correlated with management practices, more so if all managers in the firm are from the same family. This is true in the

sample regardless of income classification or regional classification. Second, bribery and political connections tend to exacerbate the negative effects of family management on the quality of management practices. This is likely because bribery tends to disincentivize good management practices (Athanasouli and Goujard, 2015), compounding the negative effects of family managers on the quality of management practices. The weaker the competitive forces, the less pressure family managers face to improve performance and adopt good management practices. Political connections accentuate the negative relationship between family management and management practices, possibly highlighting the attenuation of competitive forces to increase management practices due to political connections. Similarly, the findings show that lack of perceived competitors -serving as a proxy of competition – also accentuates the negative effect of family management on the quality of management practices.

One can also expect that if the pool of talented managers is restricted for all firms, then the negative effects of family management on management practices may be ameliorated as all firms draw from a limited talent pool. We proxy for this using the variable that captures whether firms perceive labor regulations to be a major or severe obstacle to operations. The more stringent the labor regulations, the greater the difficulty in hiring and firing, imposing constraints on the potential of hiring talented managers. Thus, we find that for firms that find labor regulations burdensome, the relationship between family management and quality of management practices is alleviated. There is also some evidence that innovative firms are less likely to be hampered by family managers. It is also worth noting that family ownership, firm size, exporter status, foreign ownership, manufacturing sector, and female managers do not play any significant role (neither exacerbate nor attenuate) in the relationship between family management and management practices. Finally, when all managers are from the same family, these firms perform poorly in the management practice dimensions of the number of performance indicators monitored, knowledge of production or service provision targets, and not surprisingly, the basis of bonuses.

In summary, this study contributes to the literature in several ways. It complements analysis in the literature by investigating the relationship between family management and quality of management practices for a sample that has not been explored by previous studies. It then extends the analysis by showing how certain key factors, including corruption, competition, and political connections, accentuate, while stringent regulations and innovation ameliorate this relationship. It also provides some nuance – showing that a mix of family and non-family managers may not be as detrimental to management practices as having all management be family members. The rest of the paper is structured as follows. Section II describes the data. Section III explains the empirical strategy. Section IV presents the results, and Section V concludes.

II.   Data

The main source of firm-level data is the EBRD-EIB-World Bank's Enterprise Surveys (WBES) conducted around 2018-2019. The choice of this particular set of WBES is because they contain questions on family management that are not available for the regular Enterprise Surveys carried out by the World Bank. This set of surveys were a joint venture between the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) and the World Bank (see EIB-EBRD-WB 2022). Data is available for 41 economies encompassing developing and advanced economies in Europe, the Middle East and North Africa (MENA) region, and Mongolia. The surveys have a section on management practices that was only implemented for medium and large firms (those with at least 20 permanent, full-time employees), where management practices were more likely to matter. The surveys also contain the standard World Bank Enterprise Surveys modules, collecting information on a representative sample of formal (registered) private firms operating in manufacturing or service sectors. The WBES data are fully comparable across countries and are collected via face-to-face interviews with business owners or top managers by using a global methodology. The data have been widely used by several studies to explore the private sector in developing economies (Paunov, 2016; Besley and Mueller, 2018; Chauvet and Ehrhar, 2018; Hjort and Poulsen, 2019). One advantage of this round of surveys is that they consist of a set of economies surveyed around a similar timeframe, employing a consistent survey instrument and methodology. These surveys were largely completed before the COVID-19 pandemic outbreak.

The key outcome variable is the quality of management practices, following the methodology implemented by Bloom et al. (2013b). This consists of eight components: (i) Problem resolution, (ii) Number of performance indicators measured, (iii) Level of ease or difficulty to achieve production or service provision targets, (iv) Knowledge of production or service provision targets, (v) Basis of manager bonuses, (vi) Length of focus of production targets, (vii) Promotion of non-managers, and (viii) Dismissal of underperforming managers. The scoring for each component is provided in table A4. The management practices module is only implemented for medium and large firms. Figure 1 provides the management practices scores for the economies in the sample.

The main variable of interest is the presence of family members in management. The specific question asked in the survey instrument is "*What percentage of the key management positions of this firm are occupied by members of this family?*" We use two variables in the analysis. First, we use this exact variable to capture the intensity of family management. Second, we capture firms where all management is family.

This is achieved through a binary variable that attaints a value of 1 if the response to the question is 100 percent, and 0 otherwise. Using both variables allows the analysis to make a distinction between firms that are entirely managed by family, and those that are partially managed by family. The average share of family managers is about 40.7 percent. Around 32 percent of medium and large businesses in the sample are entirely managed by family (Table 1). Figure 2 provides the country averages for the percentage of firms that are entirely family managed. The share of family management for each country is presented in figure 3.

Data for the control variables are also obtained from the Enterprise Surveys. These encompass standard firm-level characteristics and the operating environment including firm size, age, outward orientation, quality certification, access to finance, manager experience in the sector, and perceptions of labor regulations as a constraint. Whether the firm is owned by the same family, and the presence of political connections are also included as control variables and are not collected in the standard ES but were part of the extended questions in this round of the surveys. The specific information on family ownership is obtained from the survey question: "*What percentage of the firm is owned by the same family? (If more than one family, refer to the one with largest ownership*)." The information on political connections is obtained from the following survey question: "*Has the owner, CEO, top manager, or any of the board members of this firm ever been elected or appointed to a political position in this country?*" The rationale for the control variables is detailed in the empirical strategy section. Summary statistics are provided in table 1.

Table A1 provides some description of the nature of family-managed firms. Entirely family-managed firms have lower management scores than other firms. About 81 percent of fully family-managed firms are of medium size, compared to 72 percent for other firms. Around 12 percent of fully family-managed firms are large, compared to 24 percent of other firms. Entirely family-managed firms are also less likely to be foreign-owned (5.53 vs. 13.89 percent), and more likely to have female managers (17.57 vs 13.50 percent). Furthermore, fully family-managed firms have a larger share of family owners (96 vs 32 percent) and have more managerial experience (24 vs 20 years). They are however less likely to be politically connected (5 vs 9 percent). These differences are statistically significant at least at the 5 percent level. There are no statistically significant differences between entirely family-managed firms and the rest with regards to exporting status, access to finance (in terms of loans or bank accounts), firm age, quality certification, perceptions of labor regulations as a major or severe constraint, innovation, bribery, whether the firm started formally or whether they have one or no competitor.

A set of extended questions in the survey explore how managers of large firms use their time. We leverage this information to explore whether family managers behave differently from non-family managers. Manager time allocation is captured in terms of how frequently they interact with other decision makers in the organization (COO, CAO, board members), suppliers, and employees. Frequency of engagement is recorded in five buckets: (i) Never, (ii) Once a week, (iii) Between 2 and 4 times a week, (iv) Daily, and (v) More than once a day. Table A2 shows that that there is no statistically significant difference between family managers and non-family managers across the five buckets along the dimensions of other decision makers, suppliers, and employees. This suggests that the difference in the quality of management practices is not due to differential levels of engagement across the organizations between family managers and various actors. Or at least, family managers of large firms appear to allocate their time similarly to those of non-family managers. Note that this sample is not exactly comparable with the previous results as it only pertains to large firms in the sample of analysis. However, there is a negative relationship between family management and management practices for this sample of large firms.[3]

III. Empirical Strategy

The following equation is estimated for the pooled cross-section sample using Ordinary Least Squares (OLS).

$$MGMT_i = \beta_0 + \beta_1 FmlyMg_i + \beta_2 FmlyOwn_i + \beta_3 Size_i + \beta_4 Age_i + \beta_5 ManagerExp_i$$
$$+ \beta_6 PolConct_i + \beta_7 Manf_i + \beta_z Z_i + \delta_1 D_c + \epsilon_i \quad (1)$$

Where $MGMT$ is the average management practices score. The family management variable ($FmlyMg$) is either (i) the share of key managers that are family members or (ii) a binary variable equal to 1 if all key managers are family, and zero otherwise. To control for as many confounding factors as possible, several firm-level variables are accounted for. These include the share of family owners ($FmlyOwn$), firm size as measured by the number of full-time employees ($Size$), firm age (Age), manager experience in the same sector ($ManagerExp$), political connections in terms of whether the owner, CEO, top manager, or any of the board members of the firm have ever been elected or appointed to a political position in their country ($PolConct$). We also account for whether the sector of activity is in the manufacturing sector ($Manf$).

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[3] The findings are available upon request.

Other control variables (Z) include whether the firm is an exporter (defined as firms with 10% or more of sales directly exported), is foreign owned (defined as firms with 10% or more private foreign ownership), the presence of a checking or savings account, quality certification, bribery, competition, and whether the firm perceives labor regulations to be a major or severe constraint to operations. Country fixed effects (D_c) are included to account for time invariant country-specific omitted variables. ϵ_i is the standard error term with the usual desirable properties. Survey weights are used, and the standard errors are clustered at the location-sector-size strata level.

The identification strategy is to exploit cross-sectional variation in family management and the quality of management practices to establish the relationship between the two. The assignment of family management to firms may not be random, thereby raising endogeneity concerns. While one cannot completely rule out the possibility of simultaneity bias, it is unlikely that the presence of family management is determined by the quality of management practices. A greater concern is omitted variable bias that may be correlated with family management and management practices. To address this, we account for as many possible control variables as possible. An important determinant of the quality of management practices is the degree of competition the firm is exposed to. These can come in the form of foreign direct investment and trade that increase exposure to competition and thereby the quality of management practices (Bloom et al., 2016). These are proxied by exporter status and foreign ownership in the estimations. We account for family ownership as it is likely to influence the quality of management practices as the ownership structure will determine the performance incentives in the firm (Tsoutsoura, 2021; Bloom et al., 2015). Family ownership could resolve principal-agent problems if the manager is a family member (Villalonga and Amit, 2006; Burkart and Panunzi, 2006). Family-owned firms may also facilitate labor contracts as ownership tends to be concentrated and thus more credible and less likely to change due to the low probability of hostile takeovers (Shleifer and Summers, 1988; Mueler and Philippon, 2011; Sraer and Thesmar, 2007; Ellul et al., 2018). On the other hand, family-owned firms may extract private benefits at the cost of other shareholders (Shleifer and Vishny, 1986). Family-owned firms may also be less susceptible to hostile takeovers, and thus have fewer incentives to maximize value (Fama, 1980). This may be reflected in the adoption of poor management practices.

The presence of political connections and corruption can disincentivize firm performance by lessening competitive forces (Rijkers et al., 2017; Athanasouli and Goujard, 2015). This may in turn distort incentives to adopt good management practices. Firms may invest in quality certification to increase the returns to innovation (Paunov, 2016). Thus, quality certification may also encourage certain managerial behaviors in

the firm, and thereby encourage good management practices. Rigid labor laws can create obstacles to the adoption of management practices with regards to people management (Bloom et al., 2019).

IV. Results

Table 2 provides the main estimation results. The coefficient of the share of family management is negatively correlated with the quality of management practices (column 1), statistically significant at the 5 percent level. In column 2, we replicate the same estimation using full family management instead of the share of family management. The coefficient is similar, but the statistical significance increases to the 1 percent level. This implies that the relationship may be stronger for firms where all management is family versus firms that have partial family management. The other covariates behave largely as expected. Exporter status and foreign ownership are positively correlated with good management practices. Larger firms have better management practices, while older firms do not. Access to finance, in terms of having a loan, and ISO certification are also positively correlated with good management practices. All these findings are statistically significant at least at the 5 percent level. Perception of labor market stringency is negatively correlated with good management practices – the more a firm perceives stringent labor regulations as an obstacle, the lower the management practices score. However, this relationship is not statistically significant. The coefficient of political connections is also negative, but not statistically significant.

The sample of analysis can be largely split into three regional groups: (i) developing MENA, (ii) Eastern Europe and Central Asia, and (ii) Western Europe that only includes four countries – Italy, Portugal, Greece, and Cyprus. In table 3, we explore whether the relationship between family management and the quality of management practices stands for each of these subgroups. There is a negative correlation between the share of family management and the quality of management practices for each of these regional subgroups, although the coefficient is only statistically significant for developing MENA and Eastern Europe and Central Asia, but not for Western Europe. However, for full family management - all key management positions are held by family - the coefficient is negative and statistically significant at least at the 5 percent level for all three regional subgroups (columns 4-6, table 3). The findings suggest that for the four Western European economies, only full family management is detrimental for the quality of management practices. The coefficient of political connections is negative and only statistically significant for the Western Europe subgroup of four economies, possibly suggesting that political connections might be more detrimental for management practices for Western Economies than in the rest of the world.

In table 4 we explore the relationship by income groups. Using World Bank income classifications, economies are classified into (i) low- and middle-income economies and (ii) high income economies. We find that the share of management practices is negatively correlated with the quality of management practices, although this is statistically insignificant for high income economies, and barely statistically significant for low- and middle-income economies (10 percent level). However, the coefficient for fully family-managed firms is negative and statistically significant at least at the 5 percent level across the income groups. Consistent with the other findings, results are stronger when we look at all management being family versus partial family management.

The nature by which internal operating environments and external business environments interact with family management may accentuate or debilitate the correlation with management practices. We explore interactions with the government in particular. We look at two types of interactions in terms of (i) political connections and (ii) corruption (bribes). Results are presented in table 5. The coefficient of the interaction between all family management and political connections is negative, but statistically insignificant. The coefficient of the interaction between partial family management and political connections is negative and statistically significant at the 10 percent level. Thus, political connections, by further eroding exposure to competitive forces, may make family management even weaker in terms of management practices. Similar findings are obtained for *bribes*. *Bribes* is a binary variable that attains a value of 1 if firms are expected to make informal payments to get things done, and zero otherwise. The coefficient of the interaction between bribes and family management is negative and statistically significant at the 5 percent level, regardless of whether the firm has full or partial family management. Thus, both forms of government engagement – political connections and bribes – seem to exacerbate the negative relationship between family management and the quality of management practices.

In table 6 we explore the interaction between family management and domestic competition, and also perceptions of stringency of labor regulations. Domestic competition is measured by a binary variable that takes a value of 1 if a firm claims that it has one competitor or no competition in the main domestic market. The coefficient of the interaction between family management and domestic competition is negative and statistically significant at the 5 percent level, regardless of whether full or partial family management is considered (columns 1 and 2 of table 6). Therefore, when family-managed firms face less competition in terms of fewer competitors, they have fewer reasons to innovate and adopt better management practices. Similarly, we explore whether perceptions of labor regulations being a severe or major obstacle matter for the relationship between family management and the quality of management practices. Given that one of

the reasons family management leads to poorer management practices as there is a smaller talent pool to draw from, stringent labor regulations may mean that even firms without family managers face a limited talent pool. That is what we see in columns 5 and 6 of table 6. The coefficient of the interaction between family management and perceptions of labor regulations being a major or severe obstacle to operations is positive, and statistically at the 1 percent level, regardless of full or partial family management. Thus, the negative relationship between family management and quality of management practices is weakened as outsider managed firms also face restrictions in terms of managers that could be hired. We also find that if businesses are innovative – in terms of introducing processes – then this ameliorates the negative relationship between family management and management practices. The implication could be that if a business is in an innovative sector (or innovative by nature), the high degree of competition in such sectors exerts competitive forces that curtail the disincentive for competition brought about by family management.

While we find significant differences between family managed and non-family managed firms for the factors discussed above, it is worth noting that there are several dimensions by which there are no statistically significant differences. In table A3 we show that the coefficient of the interactions between family management and family ownership, firm size, exporter status, foreign ownership, manufacturing sector, and female managers are statistically insignificant. We do find that firm age may further worsen the negative relationship between family management and quality of management practices, but this is barely statistically significant at the 10 percent level. Table A3 presents findings for full family management, but the results are the same for partial family management with one exception - the interaction between firm age and partial family management is statistically insignificant. Thus, external factors rather an internal firm characteristics play an important role in shaping the relationship between family management and management practices.

In table 7 we explore whether family management is negatively correlated with specific management quality sub-scores. Entirely family-managed firms are negatively correlated with all the management practices sub-scores, but the coefficient is only statistically significant for the sub-scores of (i) Number of performance indicators monitored, (ii) Knowledge of production or service provision targets, and (iii) Basis of bonuses. Thus, firms that are entirely family-managed, perform poorly with regards to monitoring of indicators, sharing of information on targets, and the basis of bonuses. The findings for partially family-managed firms are similar, but not statistically significant for the basis of bonuses. However, partial family management is negatively correlated with the promotion of non-managers – statistically significant at the 10 percent level. These findings suggest that family managers do not monitor specific indicators and targets. This also affects bonuses which ideally should be based on performance targets.

V. Conclusion

This study established a negative relationship between family management and the quality of management practices, leveraging a unique dataset using a special module spanning 41 developing and advanced economies. The results confirm what has been found in the literature, although the sample in this study is of a different nature, including many firms in regions that have not been covered elsewhere. The study extends the literature by examining how external factors could attenuate or exacerbate the negative relationship between management practices. Corruption, competition, and political connections accentuate, while stringent regulations and innovation ameliorate the relationship between family management and the quality of management practices. Furthermore, when all management is from the same family, these firms perform poorly on the management practices dimensions of the number of performance indicators monitored, knowledge of production or service provision targets, and not surprisingly, the basis of promotion. Finally, a mix of family and non-family managers may not be as detrimental to management practices as having all management be family members.

What is also established is the lack of statistical significance in certain relationships. Family ownership, firm size, exporter status, foreign ownership, manufacturing sector, and female managers do not play any significant role (neither exacerbate nor attenuate) in the relationship between family management and management practices. Furthermore, for larger firms, family managers do not exhibit any statistically significant difference compared with non-family managers with regards to how they allocate (or appear to allocate) their time to interact with other decision makers, suppliers, and employees as measured by frequency of meetings. This information is leveraged from a special set of questions on time use for large firms in the sample.

While the study makes significant strides in the literature, it is also important to note the limitations. Endogeneity concerns are difficult to alleviate given the cross-sectional nature of the data. Furthermore, the survey data do not contain information on whether the family owners are the founders, or descendants of the founders, which has been found to be important in the literature (Villalonga and Amit, 2006). Regardless, this study makes an important contribution by highlighting the role that the external operating environment can have in the relationship between family management and management practices. The key implication is that the business environment matters, and for some cases it may be easier to address some of these concerns than to change the management or ownership structure of family firms.

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Table 1: Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Overall Management Score	9,015	0.515	0.208	0	1
Share of family management (0 to 1)	9,015	0.407	0.450	0	1
All management is family Y/N	9,015	0.319	0.466	0	1
Share of same family ownership (0 to 1)	9,015	0.527	0.464	0	1
Owner, Manager or Board Political Connection Y/N	9,015	0.076	0.264	0	1
Female top manager Y/N	9,015	0.148	0.355	0	1
Firm Formally Registered when Started Operations	9,015	0.959	0.199	0	1
Top manager experience in sector (years)	9,015	21.296	11.364	1	60
Log of age of firm	9,015	2.851	0.686	0	5.088
Log of size	9,015	3.890	0.917	0	11.067
Direct exports 10% or more of sales Y/N	9,015	0.264	0.441	0	1
Foreign ownership Y/N	9,015	0.112	0.316	0	1
Establishment has checking or savings account Y/N	9,015	0.974	0.160	0	1
Establishment has a line of credit or loan Y/N	9,015	0.476	0.499	0	1
ISO Certification Ownership Y/N	9,015	0.327	0.469	0	1
Firm identifying labor regulations as a major or severe constraint Y/N	9,015	0.094	0.292	0	1
Manufacturing Sector Y/N	9,015	0.393	0.488	0	1
Firm expected to make payment to get things done Y/N	8,493	0.111	0.314	0	1
No or One competitor (Y/N) (domestic)	6,856	0.062	0.241	0	1
Introduced a process innovation Y/N	8,954	0.230	0.421	0	1
MG1 Problem resolution	9,015	0.707	0.278	0	1
MG2 Number of performance indicators monitored	9,015	0.428	0.342	0	1
MG3 Level of ease or difficulty to achieve production or service provision targets	9,015	0.535	0.377	0	1
MG4 Knowledge of production or service provision targets	9,015	0.353	0.385	0	1
MG5 Basis of bonuses	9,015	0.380	0.398	0	1
MG6 Length of focus of production targets	9,015	0.573	0.404	0	1
MG7 Promotion of non-mangers	9,015	0.729	0.399	0	1
MG8 Dismissal	9,015	0.412	0.459	0	1

Table 2: Family Management and Management Practices

Model	OLS with Country FE (Cross-section)	
Outcome Variable	**Overall Management Score**	
	(1)	**(2)**
Share of family management (0 to 1)	-0.044**	
	(0.018)	
All management is family Y/N		-0.045***
		(0.013)
Share of same family ownership (0 to 1)	0.017	0.014
	(0.018)	(0.015)
Owner, Manager or Board Political Connection Y/N	-0.011	-0.010
	(0.020)	(0.020)
Female top manager Y/N	0.010	0.012
	(0.011)	(0.011)
Firm Formally Registered when Started Operations	0.047**	0.047**
	(0.022)	(0.022)
Top manager experience in sector (years)	-0.001	-0.001
	(0.000)	(0.000)
Log of age of firm	-0.014*	-0.014*
	(0.008)	(0.008)
Log of size	0.035***	0.035***
	(0.004)	(0.004)
Direct exports 10% or more of sales Y/N	0.032***	0.031***
	(0.010)	(0.010)
Foreign ownership Y/N	0.025**	0.025**
	(0.011)	(0.011)
Establishment has checking or savings account Y/N	0.017	0.020
	(0.022)	(0.022)
Establishment has a line of credit or loan Y/N	0.028***	0.027***
	(0.009)	(0.009)
ISO Certification Ownership Y/N	0.054***	0.054***
	(0.011)	(0.011)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.007	-0.006
	(0.016)	(0.015)
Manufacturing Sector Y/N	-0.008	-0.008
	(0.009)	(0.009)
Constant	0.298***	0.295***
	(0.044)	(0.044)

Country Fixed Effects	YES	YES
Number of observations	9,015	9,015
Adjusted R2	0.226	0.228

note: *** p<0.01, ** p<0.05, * p<0.1, Standard errors clustered at the strata level. Survey weights are employed.

Table 3: Family Management and Management Practices by Region

Model	OLS with Country FE (Cross-section)					
Outcome Variable	Overall Management Score					
	Developing MENA	Eastern Europe and Central Asia	Western Europe (Italy, Portugal, Greece, Cyprus)	Developing MENA	Eastern Europe and Central Asia	Western Europe (Italy, Portugal, Greece, Cyprus)
	(1)	(2)	(3)	(4)	(5)	(6)
Share of family management (0 to 1)	-0.124**	-0.048**	-0.055			
	(0.054)	(0.020)	(0.054)			
All management is family Y/N				-0.126***	-0.036**	-0.075**
				(0.037)	(0.015)	(0.033)
Share of same family ownership (0 to 1)	-0.007	0.039*	0.059	-0.021	0.028	0.074
	(0.043)	(0.020)	(0.057)	(0.031)	(0.017)	(0.047)
Owner, Manager or Board Political Connection Y/N	-0.019	0.019	-0.261***	-0.021	0.021	-0.257***
	(0.041)	(0.019)	(0.082)	(0.040)	(0.019)	(0.085)
Female top manager Y/N	0.060	0.006	-0.050	0.055	0.008	-0.044
	(0.048)	(0.012)	(0.037)	(0.046)	(0.012)	(0.037)
Firm Formally Registered when Started Operations	0.012	0.053*	0.125**	0.013	0.053*	0.131***
	(0.043)	(0.030)	(0.050)	(0.042)	(0.030)	(0.049)
Top manager experience in sector (years)	-0.0005	-0.0005	0.0003	-0.001	-0.001	0.0002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Log of age of firm	-0.019	-0.014*	-0.016	-0.015	-0.014	-0.012
	(0.020)	(0.008)	(0.026)	(0.020)	(0.008)	(0.026)
Log of size	0.005	0.038***	0.048**	0.006	0.039***	0.049**
	(0.013)	(0.005)	(0.020)	(0.014)	(0.005)	(0.019)
Direct exports 10% or more of sales Y/N	0.026	0.023**	0.111***	0.026	0.022*	0.108***
	(0.022)	(0.011)	(0.036)	(0.021)	(0.011)	(0.035)
Foreign ownership Y/N	0.032	0.029**	-0.013	0.036	0.030**	-0.010
	(0.028)	(0.012)	(0.041)	(0.028)	(0.012)	(0.040)
Establishment has checking or savings account Y/N	0.073**	-0.004	-0.148***	0.071**	-0.001	-0.155***
	(0.031)	(0.026)	(0.057)	(0.030)	(0.026)	(0.059)
Establishment has a line of credit or loan Y/N	0.005	0.028***	0.014	-0.001	0.028**	0.010
	(0.023)	(0.011)	(0.044)	(0.022)	(0.011)	(0.044)
ISO Certification Ownership Y/N	0.048	0.058***	0.002	0.053	0.058***	-0.004
	(0.039)	(0.011)	(0.047)	(0.039)	(0.011)	(0.047)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.089**	-0.003	0.044	-0.089**	-0.003	0.057
	(0.037)	(0.017)	(0.051)	(0.035)	(0.017)	(0.051)

Manufacturing Sector Y/N	-0.009	-0.009	0.009	-0.014	-0.009	0.010
	(0.026)	(0.010)	(0.035)	(0.025)	(0.010)	(0.035)
Constant	0.424***	0.257***	0.216**	0.415***	0.249***	0.205*
	(0.102)	(0.053)	(0.108)	(0.105)	(0.053)	(0.106)
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Number of observations	1,821	5,982	974	1,821	5,982	974
Adjusted R2	0.218	0.211	0.289	0.231	0.211	0.301

note: *** p<0.01, ** p<0.05, * p<0.1, Standard errors clustered at the strata level. Survey weights are employed.

Table 4: Family Management and Management Practices by Income

Model	OLS with Country FE (Cross-section)			
Outcome Variable	Overall Management Score			
	Low and Middle Income Economies	High Income Economies	Low and Middle Income Economies	High Income Economies
	(1)	(2)	(3)	(4)
Share of family management (0 to 1)	-0.057*	-0.026		
	(0.029)	(0.019)		
All management is family Y/N			-0.045**	-0.043***
			(0.021)	(0.015)
Share of same family ownership (0 to 1)	0.026	0.006	0.013	0.019
	(0.027)	(0.021)	(0.021)	(0.019)
Owner, Manager or Board Political Connection Y/N	0.004	-0.051	0.005	-0.049
	(0.024)	(0.037)	(0.024)	(0.037)
Female top manager Y/N	0.010	0.010	0.011	0.013
	(0.014)	(0.017)	(0.014)	(0.017)
Firm Formally Registered when Started Operations	0.045	0.044	0.045	0.044
	(0.029)	(0.033)	(0.029)	(0.032)
Top manager experience in sector (years)	-0.001	-0.0004	-0.001	-0.0004
	(0.001)	(0.001)	(0.001)	(0.001)
Log of age of firm	-0.015	-0.014	-0.015	-0.015
	(0.010)	(0.013)	(0.010)	(0.013)
Log of size	0.036***	0.034***	0.036***	0.033***
	(0.005)	(0.008)	(0.005)	(0.008)
Direct exports 10% or more of sales Y/N	0.023*	0.046***	0.023*	0.045***
	(0.013)	(0.014)	(0.013)	(0.014)
Foreign ownership Y/N	0.017	0.038**	0.018	0.037**
	(0.016)	(0.015)	(0.016)	(0.015)
Establishment has checking or savings account Y/N	0.027	-0.026	0.030	-0.023
	(0.022)	(0.059)	(0.022)	(0.060)
Establishment has a line of credit or loan Y/N	0.021*	0.040***	0.021*	0.039***
	(0.012)	(0.014)	(0.012)	(0.014)
ISO Certification Ownership Y/N	0.050***	0.064***	0.050***	0.063***
	(0.015)	(0.015)	(0.015)	(0.015)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.044**	0.030	-0.044**	0.032
	(0.020)	(0.023)	(0.019)	(0.023)
Manufacturing Sector Y/N	-0.005	-0.012	-0.005	-0.012
	(0.011)	(0.015)	(0.011)	(0.015)
Constant	0.292***	0.389***	0.288***	0.387***

	(0.052)	(0.081)	(0.052)	(0.083)
Country Fixed Effects	YES	YES	YES	YES
Number of observations	5,931	3,084	5,931	3,084
Adjusted R2	0.202	0.275	0.202	0.280

note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$, Standard errors clustered at the strata level. Survey weights are employed.

Table 5: Government Interactions and Family Management Practices

Model	OLS with Country FE (Cross-section)			
Outcome Variable	Overall Management Score			
	(1)	**(2)**	**(3)**	**(4)**
All Family Management x Political connections	-0.083			
	(0.053)			
Family Management share x Political connections		-0.092*		
		(0.051)		
All Family Management x Informal payments to get things done			-0.069**	
			(0.031)	
Family Management share x Informal payments to get things done				-0.074**
				(0.031)
All management is family Y/N	-0.040***		-0.035***	
	(0.013)		(0.013)	
Share of family management (0 to 1)		-0.038**		-0.032*
		(0.018)		(0.018)
Firm expected to make payment to get things done Y/N			0.004	0.015
			(0.015)	(0.017)
Owner, Manager or Board Political Connection Y/N	0.009	0.017	-0.017	-0.018
	(0.020)	(0.021)	(0.018)	(0.018)
Share of same family ownership (0 to 1)	0.013	0.015	0.011	0.012
	(0.015)	(0.018)	(0.014)	(0.018)
Female top manager Y/N	0.011	0.010	0.011	0.009
	(0.011)	(0.011)	(0.011)	(0.011)
Firm Formally Registered when Started Operations	0.048**	0.047**	0.044**	0.043*
	(0.022)	(0.022)	(0.022)	(0.023)
Top manager experience in sector (years)	-0.001	-0.001	-0.001*	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)
Log of age of firm	-0.013*	-0.014*	-0.012	-0.012
	(0.008)	(0.008)	(0.008)	(0.008)
Log of size	0.035***	0.035***	0.034***	0.034***
	(0.004)	(0.004)	(0.005)	(0.005)
Direct exports 10% or more of sales Y/N	0.031***	0.031***	0.034***	0.034***
	(0.010)	(0.010)	(0.010)	(0.010)
Foreign ownership Y/N	0.026**	0.025**	0.024**	0.024**
	(0.011)	(0.011)	(0.012)	(0.012)
Establishment has checking or savings account Y/N	0.019	0.016	0.019	0.018
	(0.022)	(0.022)	(0.023)	(0.022)
Establishment has a line of credit or loan Y/N	0.027***	0.028***	0.033***	0.034***
	(0.009)	(0.009)	(0.008)	(0.008)

ISO Certification Ownership Y/N	0.054***	0.054***	0.050***	0.050***
	(0.011)	(0.011)	(0.011)	(0.011)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.006	-0.006	-0.006	-0.007
	(0.015)	(0.015)	(0.016)	(0.016)
Manufacturing Sector Y/N	-0.008	-0.007	-0.010	-0.009
	(0.009)	(0.009)	(0.009)	(0.009)
Constant	0.292***	0.295***	0.299***	0.300***
	(0.043)	(0.043)	(0.044)	(0.044)
Country Fixed Effects	YES	YES	YES	YES
Number of observations	9,015	9,015	8,493	8,493
Adjusted R2	0.230	0.228	0.224	0.222

note: *** p<0.01, ** p<0.05, * p<0.1, Standard errors clustered at the strata level. Survey weights are employed.

Table 6: Competition, Innovation, and Regulation and Family Management Practices

Model	OLS with Country FE (Cross-section)					
Outcome Variable	Overall Management Score					
	(1)	(2)	(3)	(4)	(5)	(6)
All Family Management x No or One Competitor (domestic)	-0.100**					
	(0.042)					
Family Management share x No or One Competitor (domestic)		-0.119**				
		(0.047)				
All Family Management x Introduced Process Innovation			0.047**			
			(0.022)			
Family Management share x Introduced Process Innovation				0.056**		
				(0.023)		
All Family Management x Labor Regulations Major/Severe Obstacle					0.092***	
					(0.032)	
Family Management share x Labor Regulations Major/Severe Obstacle						0.125***
						(0.033)
All management is family Y/N	-0.037**		-0.050***		-0.054***	
	(0.016)		(0.013)		(0.013)	
Share of family management (0 to 1)		-0.035		-0.048***		-0.058***
		(0.021)		(0.017)		(0.018)
No or One competitor (Y/N) (domestic)	0.038	0.051				
	(0.034)	(0.038)				
Introduced a process innovation			0.057***	0.050***		
			(0.014)	(0.016)		
Share of same family ownership (0 to 1)	0.009	0.012	0.007	0.007	0.014	0.018
	(0.019)	(0.022)	(0.014)	(0.017)	(0.015)	(0.018)
Owner, Manager or Board Political Connection Y/N	-0.013	-0.015	-0.011	-0.011	-0.011	-0.011
	(0.023)	(0.023)	(0.020)	(0.021)	(0.020)	(0.020)
Female top manager Y/N	0.022*	0.021*	0.009	0.008	0.011	0.010
	(0.012)	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)
Firm Formally Registered when Started Operations	0.043*	0.042*	0.053**	0.053**	0.048**	0.049**
	(0.024)	(0.024)	(0.022)	(0.023)	(0.022)	(0.022)
Top manager experience in sector (years)	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Log of age of firm	-0.018**	-0.019**	-0.013*	-0.013*	-0.014*	-0.014*
	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)

Log of size	0.035***	0.035***	0.034***	0.034***	0.035***	0.035***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
Direct exports 10% or more of sales Y/N	0.029**	0.030**	0.030***	0.030***	0.032***	0.033***
	(0.013)	(0.013)	(0.009)	(0.009)	(0.010)	(0.010)
Foreign ownership Y/N	0.041***	0.042***	0.025**	0.025**	0.025**	0.023**
	(0.013)	(0.013)	(0.011)	(0.011)	(0.011)	(0.011)
Establishment has checking or savings account Y/N	0.025	0.022	0.016	0.015	0.022	0.021
	(0.025)	(0.025)	(0.021)	(0.021)	(0.021)	(0.022)
Establishment has a line of credit or loan Y/N	0.024**	0.024**	0.022**	0.023**	0.027***	0.028***
	(0.011)	(0.011)	(0.009)	(0.010)	(0.009)	(0.009)
ISO Certification Ownership Y/N	0.062***	0.062***	0.048***	0.048***	0.054***	0.054***
	(0.013)	(0.013)	(0.011)	(0.011)	(0.011)	(0.011)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.008	-0.008	-0.011	-0.012	-0.035**	-0.058***
	(0.018)	(0.018)	(0.015)	(0.015)	(0.017)	(0.018)
Manufacturing Sector Y/N	-0.004	-0.004	-0.013	-0.012	-0.008	-0.007
	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)
Constant	0.296***	0.299***	0.303***	0.304***	0.294***	0.297***
	(0.049)	(0.049)	(0.044)	(0.044)	(0.044)	(0.044)
Country Fixed Effects	YES	YES	YES	YES	YES	YES
Number of observations	6,856	6,856	8,954	8,954	9,015	9,015
Adjusted R2	0.224	0.223	0.250	0.248	0.232	0.232

note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$, Standard errors clustered at the strata level. Survey weights are employed.

Table 7: Family Management and Management Practices Sub-scores

Model	OLS with Country FE (Cross-section)							
Outcome Variable	**MG1 Problem resolution**	**MG2 Number of performance indicators monitored**	**MG3 Level of ease or difficulty to achieve production or service provision targets**	**MG4 Knowledge of production or service provision targets**	**MG5 Basis of bonuses**	**MG6 Length of focus of production targets**	**MG7 Promotion of non-mangers**	**MG8 Dismissal**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
All management is family Y/N	-0.020	-0.082***	-0.033	-0.076***	-0.053**	-0.029	-0.040	-0.026
	(0.020)	(0.019)	(0.024)	(0.024)	(0.027)	(0.027)	(0.027)	(0.027)
Constant	0.584***	-0.048	0.177**	-0.002	0.382***	0.229**	0.727***	0.313***
	(0.073)	(0.068)	(0.082)	(0.069)	(0.094)	(0.095)	(0.081)	(0.111)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Country Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Number of observations	9,015	9,015	9,015	9,015	9,015	9,015	9,015	9,015
Adjusted R2	0.168	0.219	0.129	0.142	0.139	0.168	0.132	0.152
Share of family management (0 to 1)	0.025	-0.065**	-0.038	-0.098***	-0.052	-0.040	-0.058*	-0.027
	(0.028)	(0.025)	(0.030)	(0.030)	(0.035)	(0.036)	(0.035)	(0.036)
Constant	0.579***	-0.045	0.179**	0.007	0.385***	0.233**	0.732***	0.315***
	(0.074)	(0.069)	(0.082)	(0.068)	(0.094)	(0.095)	(0.081)	(0.111)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Country Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
Number of observations	9,015	9,015	9,015	9,015	9,015	9,015	9,015	9,015
Adjusted R2	0.168	0.215	0.128	0.142	0.139	0.168	0.132	0.152

note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$, Standard errors clustered at the strata level. Survey weights are employed. Controls are the same as in the base regressions in Table 2

Table A1: Characteristics of Family Managed Firms in MENA

	All Management is Family		
	YES	**NO**	**Significance**
Overall Management Score	0.47	0.53	***
Medium Firms (%)	81.27	72.10	***
Large Firms (%)	11.66	23.78	***
Young Firms (5 years or less)	6.39	6.19	
Manufacturing firms (%)	38.20	39.84	
Exporter (%)	25.26	26.90	
Foreign Owned (%)	5.53	13.89	***
Female Top Manager (%)	17.57	13.50	**
Share of same family ownership (%)	96.15	32.32	***
Owner, Manager or Board Political Connection (% of firms)	5.23	8.65	**
Top manager experience in sector (years)	23.86	20.09	***
Checking or savings account (% of firms)	97.26	97.44	
Line of credit or loan (% of firms)	50.08	46.49	
ISO Certification Ownership (% of firms)	31.46	33.32	
Firm identifying labor regulations as a major or severe constraint (% of firms)	0.10	0.09	
Firm Formally Registered when Started Operations	95.98	95.82	
Firm expected to make payment to get things done (% of firms)	10.71	11.33	
No or One competitor (domestic) (% of firms)	5.99	6.26	
Introduced a process innovation (% of firms)	21.70	23.65	

Table A2: Frequency of Manager Interactions (% of firms)

All Management is Family			
	YES	**NO**	**Difference**
Other Decision Makers (e.g. COO, CAO, CMO, Board members, Business Unit managers, or managers from a parent company**)**			
Never	4.32	2.89	1.43
Once a week	27.13	30.97	-3.85
Between 2 and 4 times a week	22.49	24.89	-2.40
Daily	37.68	34.92	2.76
More than once a day	7.54	4.85	2.69
Suppliers			
Never	23.85	24.36	-0.51
Once a week	40.25	45.45	-5.21
Between 2 and 4 times a week	19.85	17.25	2.60
Daily	12.31	9.24	3.07
More than once a day	0.86	0.49	0.37
Employees			
Never	10.77	9.44	1.33
Once a week	30.21	33.41	-3.19
Between 2 and 4 times a week	19.63	21.57	-1.93
Daily	31.78	30.44	1.34
More than once a day	0.28	0.22	0.06

Note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$. This information is only available for large firms. None of the differences between family-managed and non-family managed firms are statistically significant

Table A3: Family Management Practices and Firm Characteristics

Model	OLS with Country FE (Cross-section)						
Outcome Variable	Overall Management Score						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All Family Management x Share of same family ownership (%)	-0.021						
	(0.072)						
All Family Management x Size (in logs)		-0.0004					
		(0.010)					
All Family Management x Exporter			0.005				
			(0.021)				
All Family Management x Foreign ownership				0.024			
				(0.038)			
All Family Management x Age (in logs)					-0.025*		
					(0.015)		
All Family Management x Manufacturing						0.016	
						(0.019)	
All Family Management x Female Manager							0.010
							(0.023)
All management is family Y/N	-0.026	-0.043	-0.046***	-0.046***	0.028	-0.051***	-0.047***
	(0.071)	(0.044)	(0.015)	(0.013)	(0.046)	(0.016)	(0.014)
Share of same family ownership (0 to 1)	0.015	0.014	0.014	0.014	0.013	0.014	0.014
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Owner, Manager or Board Political Connection Y/N	-0.010	-0.010	-0.010	-0.010	-0.009	-0.010	-0.010
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Female top manager Y/N	0.011	0.012	0.011	0.011	0.011	0.012	0.008
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.013)
Firm Formally Registered when Started Operations	0.047**	0.047**	0.047**	0.048**	0.046**	0.046**	0.047**
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Top manager experience in sector (years)	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log of age of firm	-0.014*	-0.014*	-0.014*	-0.014*	-0.006	-0.014*	-0.014*
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Log of size	0.035***	0.035***	0.035***	0.035***	0.035***	0.035***	0.035***
	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Direct exports 10% or more of sales Y/N	0.031***	0.031***	0.030**	0.031***	0.031***	0.032***	0.031***
	(0.010)	(0.010)	(0.012)	(0.010)	(0.010)	(0.009)	(0.010)
Foreign ownership Y/N	0.025**	0.025**	0.025**	0.021*	0.026**	0.026**	0.025**
	(0.011)	(0.011)	(0.011)	(0.012)	(0.011)	(0.011)	(0.011)

Establishment has checking or savings account Y/N	0.019	0.019	0.020	0.019	0.020	0.021	0.019
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Establishment has a line of credit or loan Y/N	0.027***	0.027***	0.027***	0.027***	0.028***	0.027***	0.027***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
ISO Certification Ownership Y/N	0.054***	0.054***	0.054***	0.054***	0.054***	0.054***	0.054***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Firm identifying labor regulations as a major or severe constraint Y/N	-0.006	-0.006	-0.006	-0.006	-0.007	-0.006	-0.006
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Manufacturing Sector Y/N	-0.008	-0.008	-0.008	-0.008	-0.009	-0.013	-0.008
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)
Constant	0.296***	0.295***	0.295***	0.295***	0.274***	0.296***	0.295***
	(0.044)	(0.046)	(0.044)	(0.044)	(0.043)	(0.044)	(0.044)
Country Fixed effects	YES	YES	YES	YES	YES	YES	YES
Number of observations	9,015	9,015	9,015	9,015	9,015	9,015	9,015
Adjusted R2	0.228	0.228	0.228	0.228	0.230	0.228	0.228

note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$, Standard errors clustered at the strata level. Survey weights are employed.

Table A4: Management Practices Scoring

MG1 Problem resolution (r1)	Score
Action when problem in the production/service provision arose	
Most structured: We fixed it and took action to make sure that it did not happen again, and had a continuous improvement process to anticipate problems like these in advance	1
Second most structured: We fixed it and took action to make sure it did not happen again	0.667
Second least structured: We fixed it but did not take further action	0.333
Least structured: No action was taken	0

MG2 Number of performance indicators monitored (r3)	Score
Number of production or service provision performance indicators monitored	
10 or more indicators	1
3-9 indicators	0.667
1-2 indicators	0.333
No indicators	0

MG6 Length of focus of production targets	Score
Focus of production targets	
Combination of short-term and long-term targets	1
long-term only	0.667
short-term only	0.333
No targets or targets not achieved	0

MG3 Level of ease or difficulty to achieve production or service provision targets (r6)	Score
Level of ease or difficulty to achieve targets	
No targets or targets not achieved	0
Achieved without much effort	0.2
Only achieved with extraordinary effort	0.4
Achieved with some effort	0.6
Achieved with normal amount of effort	0.8
Achieved with more than normal effort	1

MG4 Knowledge of production or service provision targets (r7)	Score
Personnel's knowledge of production or service provision targets	
All managers and most workers	1
Most managers and most workers	0.667
Most managers and some workers	0.333
Only senior managers	0
No targets	0

| MG5 Basis of bonuses (r9)	Score
What managers' performance bonuses were usually based on	

Their own performance as measured by targets	1
Their team or shift performance as measured by targets	0.75
Their establishment's performance as measured by targets	0.5
Their company's performance as measured by targets	0.25
No performance bonuses	0

| MG7 Promotion of non-mangers	Score
Basis for promoting non-mangers	
Based solely on performance and ability	1
Based partly on performance and ability, and partly on other factors (for example, tenure or family connections)	0.667
Based mainly on factors other than performance and ability (for example, tenure or family connections)	0.333
Non-managers are normally not promoted	0

MG8 Dismissal	Score
When underperforming managers were dismissed or reassigned	
Within 6 months of underperformance	1
After 6 months	0.5
Rarely or never	0

Note: "Don't know" responses are removed from the scores

Figure 1: Overall Management Score
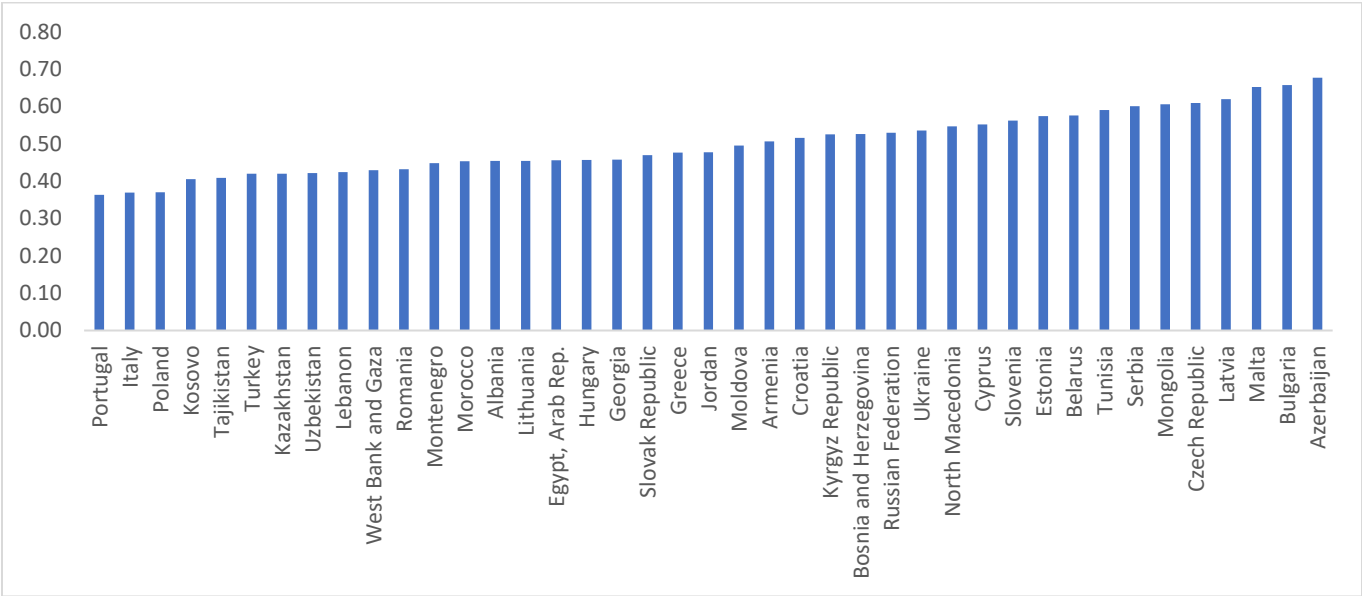
Figure 2: All Family Management (% of Firms)
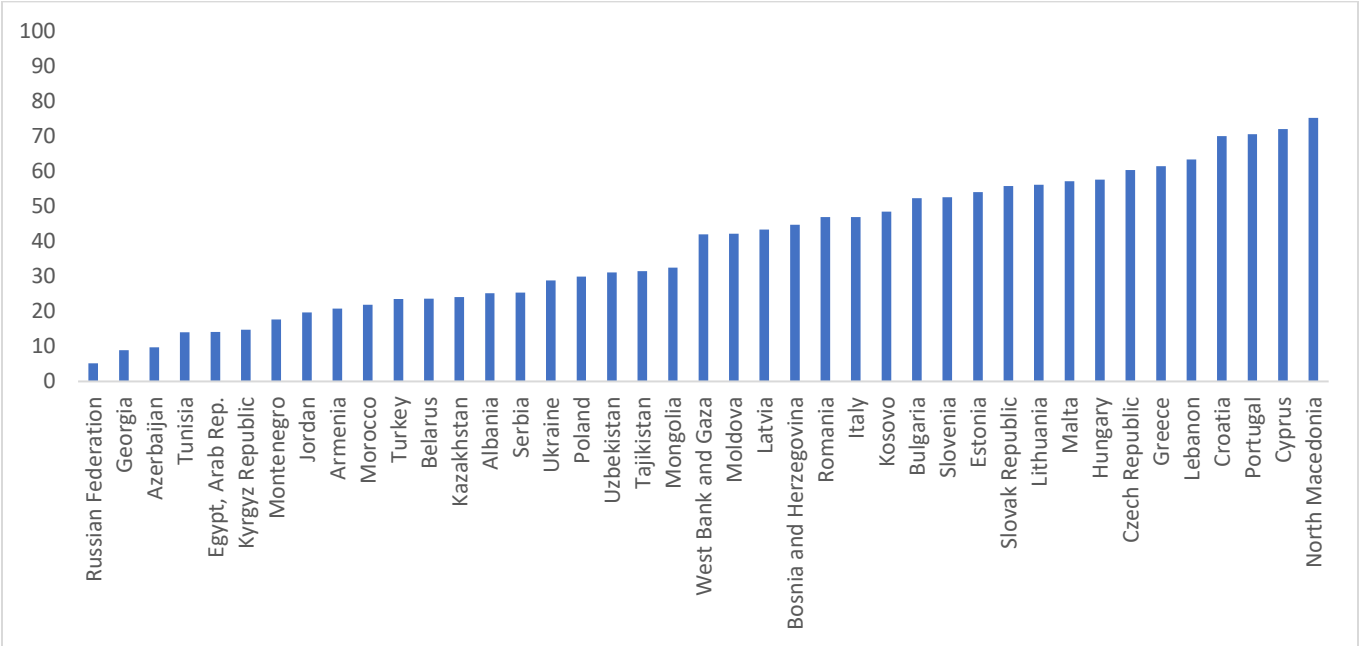
Figure 3: Percentage of Family Management (%)