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CDDRL was founded by a generous grant from the Bill and Flora Hewlett Foundation in October in 2002 as part of the Stanford Institute for International Studies at Stanford University. The Center supports analytic studies, policy relevant research, training and outreach activities to assist developing countries in the design and implementation of policies to foster growth, democracy, and the rule of law.

# **Contract Enforcement and Firm Organization: Evidence from the Indian Textile Industry**

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## **Abstract:**

Using new field-level and international survey evidence we highlight one channel via which weak legal institutions may lower Indian productivity and growth. We provide evidence that top executives in Indian firms are highly centralized and do not delegate functional responsibility and decision making to middle-management. Case-study evidence and large-scale firm surveys suggest executives fear that managers will misappropriate firm assets given the opportunity to do so, in part because the weak legal system is unlikely to successfully punish the culprits and recover the assets. As a result, firms' growth potential is limited because of the limited time and attention of the top executives. This can help explain why Indian firms are smaller on average than those in the US or Europe. It can also explain why there is less reallocation of capital and labor from low productivity to high productivity firms in India, since otherwise-successful firms find it harder to grow. As a result, weak legal institutions may play a potentially important role in reducing aggregate productivity and growth in India.

JEL No. L2, M2, O32, O33.

Keywords: decentralization, trust, organization, competition, social capital

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# 1. Introduction

A large literature in institutional economics argues that a weak legal environment – especially with regards to the enforcement of contracts and property rights -- constrains the nature and scope of transactions in a way that is detrimental to economic growth. See North (1991) for a survey. A related literature stemming from Greif (1993) argues that the private sector can partly offset this effect by developing specialized institutions to enforce contracts within close-knit networks, though in the modern economic environment firms beyond some basic threshold of size and complexity must be able to transact outside of such networks.

One potentially important channel via which the strength of legal institutions may affect economic outcomes is through the internal organization of firms. In particular, weak legal recourse makes it harder to punish employees for misbehavior – including the theft of company resources – and harder to recover stolen property. This may lead owners and top executives of firms to concentrate functional responsibility and decision-making authority in their own hands, rather than delegating responsibilities and decisions to managers and supervisors. Higher levels of trust and social capital may partially mitigate the impact of weak formal institutions.

In a study which motivates the current work, Bloom et al (2009) find that countries with stronger rule of law have larger and more decentralized firms. While not necessarily causal, this is consistent with weak contract enforcement increasing the risk of delegating certain decisions to managers. For example, middle-managers may buy materials and equipment from firms owned by their family members at inflated prices. In the US managers would be dissuaded from doing this type of activity by fear of legal prosecution. In India the parlous legal system makes formal prosecution of such behavior extremely difficult for anyone but the largest most politically connected firms.

This paper reviews this evidence and then offers a complementary perspective from a micro level, utilizing evidence from an intensive long-term study of mid-sized textile manufacturing firms in Maharashtra, India. The study itself is designed to understand why many Indian firms have not adopted modern business management practices, and -- by engaging a global management consulting firm to help dramatically improve the management practices of a random subset of the firms -- to estimate the impact of modern

management practices on firm performance. This design involves maintaining close working relationships with the firms and their senior managers and executives and a daily presence of the project staff on the factory floor for over six months. This provides a unique insight into how the firms interact with the legal and regulatory environment, which we identified at the outset of the project as a potential determinant of adoption of modern management practices; see Bloom and Van Reenen (2007).

Using a detailed case study approach, we provide evidence that the executives of our participating firms choose relatively hierarchical organizational structures and limit delegation of important responsibilities to subordinates. Concretely, if an Indian firm caught a line manager misappropriating resources, the firm would have little formal recourse, as court cases take many years, large fees and bribes. The manager could likely disappear with a very low probability of being tracked down by the authorities. While reputation effects might provide some deterrence, India has tens of thousands of textile firms with thirty million workers, and the likelihood, for instance, that a mid-sized fabrics firm in Gujarat has heard of a particular errant manager from a mid-sized firm in Maharashtra is very low.

Weak recourse for misbehavior erodes trust between executives and managers. The result is highly centralized management style in which executives do not delegate important responsibilities to managers for fear of abuse, who in turn do not delegate much below them. The same dynamic plays out between managers and junior managers or supervisors, because the former usually bear responsibility for the misbehavior of the latter in the eyes of executives, who naturally suspect collusion or weak oversight. We argue that these practices effectively limit the size and scope of the firm's productive activities and are in part attributable to the failure of effective enforcement in the legal system.

At the macroeconomic level, this inability of Indian firms to delegate and grow may reduce aggregate productivity, ultimately reducing the welfare of its citizens. The reason is that if CEOs can not delegate decisions to senior managers they will be constrained in how large their firm can grow. Some of the earliest work on the growth of firms by Penrose (1959) and Chandler (1962) argued that decentralization was essential for the creation of large firms, because CEOs are constrained over the number of decisions they can make. As firms grow CEOs need to increasingly decentralize decision making power to their senior management. This is important because for capital and labor to be effectively reallocated across firms, productive firms need to grow large and take market share from unproductive

firms. This reallocation is a major factor driving growth in developed countries like the US.<sup>1</sup> But in India we find firms are typically highly centralized, presumably why their average firm size is smaller (see Bollard, 2009).

This inability of Chinese and India firms to delegate and grow also reduces aggregate productivity. It does this by constraining the reallocation of capital and labor across firms, consistent with the evidence in Banerjee and Duflo (2004), Hsieh and Klenow (2008) and Pawasutipaisit and Townsend (2008).

The paper is organized as follows. Section 2 reviews some of the literature relevant for this study. Section 3 provides an overview of the larger management consulting project of which this paper is a part. Section 4a discusses the precise sets of laws and regulations our sample firms are de jure bound to comply with. Section 4b examines in some detail the effect of the rule of law on the size of our sample firms. Section 5 examines firms' on-the-ground experience with the laws and regulations identified in Section 4a, and identifies some potential hypotheses to explain the observed patterns of behaviour. Section 6 concludes.

## **2. Literature on law and economic performance**

### ***2.1 Legal institutions and economic growth***

Economists have long taken an interest in the impact of the legal environment on the structure and performance of economies and the conventional view is that the quality of legal institutions is an important determinant of economic development. Although few would argue against the idea that “institutions” matter in a general sense, there is much less consensus on the precise ways in which they matter.

One body of work focuses on deeper-rooted “institutions” which shape the enforcement of property rights and contracts and argues that such rights are an important pre-condition for economic development (see e.g. Demsetz (1967), Alchian and Demsets (1973), North (1981) and Shleifer and Vishny (1993)). Recent empirical work on the subject (Field

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<sup>1</sup> See, for example, Foster, Haltiwanger and Krizan (2000 and 2005) for the US, who show that about 50% of productivity growth in manufacturing and about 90% in retail comes from reallocation.

(2008), Schagrodsky et al. (2006)) has documented the relationship between the enforcement of property rights and economic activity at the level of the household in developing countries.

Another channel through which legal institutions affect growth is posited to be through the direct effect of legal institutions on financial development. In a series of influential papers La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997,1998) argued that in countries where legal institutional quality is high, savers are more willing to invest in financial markets, thereby spurring growth by deepening financial markets. While there has been a considerable debate surrounding this work, there seems to be a consensus opinion that legal institutions do play an important role in financial development.

Although contract enforcement is seen as a key determinant of economic growth, researchers have pointed out that in economic environments without effective legal institutions, firms devise alternative methods to support contractual obligations. For instance, McMillan and Woodruff (1999) argue that Vietnamese firms use the strength of their personal relations to ensure that contracts are respected. Relatedly, Guiso, Sapienza and Zingales (2004) demonstrate that high levels of social capital lead to greater participation in the financial sector and that this role is more pronounced in areas with weak legal institutions. The implication is that in these situations social capital can substitute for legal institutions to some extent. Both of these strands of research point to the fact that in the absence of a functioning legal system agents take recourse in alternative arrangements to carry out economic activity. One largely unanswered question in the literature is the extent of efficiency loss when agents are forced to take recourse in second-best institutions.

## ***2.2 Law and management***

More recent work at the firm level focuses on management practices, a type of organizational technologies which are empirically tightly linked to firm performance (Bloom and Van Reenen 2007).<sup>2</sup> There is some theory and preliminary evidence that the

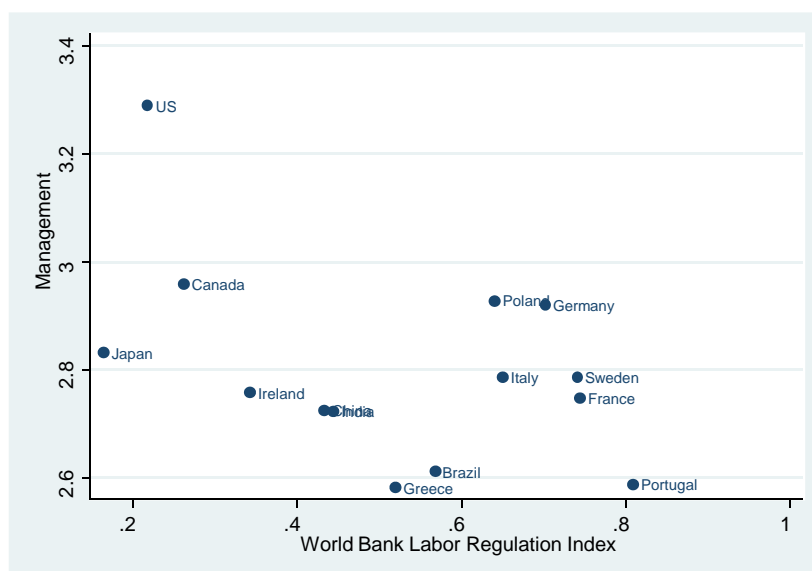
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<sup>2</sup> The slow pace of adoption of superior management practices across the US, Europe and Japan - from Taylor's Scientific Management, to Ford's mass production, Sloan's M-form corporation, Demming's quality movement, and Toyota's Lean production - suggests that management practices are technologies which diffuse slowly over time. Recent survey evidence suggests that their limited penetration in developing countries may play a key role in depressing productivity. However, this is suggestive rather than conclusive

legal environment may influence firms' management practices. For instance, it may be hard to implement modern performance-based pay, promotion and retrenchment practices when labor laws make firing workers difficult or impossible. In fact, Bloom et al. (2007) find strong cross-country correlations between legal constraints on hiring and firing on the one hand and the quality of firms' human resources management practices on the other.<sup>3</sup> In addition, regulations which limit competition may be responsible in part for poor management quality. These confound agency problems by enabling poorly managed firms to survive despite poor management practices, and also reduce the ability of firms to learn better management practices from their product market rivals. McKinsey (2001) also emphasizes low levels of competition, in large part induced by legal constraints on market activity, as a key factor in low levels of Indian productivity.

**Figure 1.**

### **LABOR MARKET REGULATIONS ARE ASSOCIATED WITH WEAKER HUMAN CAPITAL MANAGEMENT**



**Source: Bloom et al. 2007**

given the lack of evidence on the causal impact of management on productivity. For example, these correlations may arise because more productive firms attract better employees who are more likely to have been exposed to modern management practices.

<sup>3</sup> This is consistent with the evidence presented in an influential series of papers by Besley and Burgess (2004) and coauthors, who argue that Indian states which strengthened worker protections in their labor laws grew more slowly over the last 30 years than states which did not. Aghion et al (2008) argue that Indian states with stricter labor regulations were also less likely to benefit from the elimination of the onerous licensing requirements that the Indian government removed in the mid 1980s and early 1990s.



### ***2.3 Law and firm organization***

In addition to influencing general management practices, the legal environment may shape the size and organization of firms. There has been a recent empirical literature on this topic that generally finds a positive relationship between the quality and efficiency of legal institutions and firm size.

Kumar, Rajan and Zingales (2001) examine the relationship between firm size and the quality of legal institutions in thirteen European countries. They find that countries with better legal systems also have larger firms and that this effect is more pronounced for low capital intensive firms. While it is hard to interpret these relationships as directly causal, the authors argue that the correlations are consistent with the view that in countries with relatively weak legal institutions (such as weak patent rights), firms with high levels of intangible assets are likely to be smaller and less prevalent. In related work, Laevan and Woodruff (2007) document a similar finding in Mexico. They show that an one standard deviation increase in the quality of legal institutions is associated with a .15 to .30 standard deviation increase in firm size. They provide evidence that this link is causal and use an instrumental variables approach to address the potential endogeneity of legal quality. They suggest that this effect is due to the fact that better legal institutions reduce idiosyncratic risk for the owner entrepreneur and thereby allow him to increase his investment in the firm.

In this paper we offer a complementary perspective about the relationship between legal institutions and firm size by examining in detail the extent to which firm owner-managers and effectively control their workforce in an environment with weak contract enforcement. The perspective offered here is complementary to those above and provides additional reasons for why we should expect to see a positive relationship between firm size and the quality of legal institutions.

### **3. Decentralization, delegation, and contract enforcement**

As described above, the rule of law and legal institutions may affect economic performance by shaping the organization of firms. We focus here on the extent of decentralization of authority within the firm.

Decentralization means the degree to which managerial tasks and decision-making are delegated from top executives to managers and supervisors. The extent of decentralization influences the potential size and scope of firms because of the limited time and attention of top executives. CEOs of very small firms can (and do) personally manage day-to-day functions in accounting, sales, marketing and operations. However, as a firm grows, CEOs must delegate more and more day-to-day decisions and functions to managers, due to the sheer number and complexity of tasks that must be completed.

The earliest work on the growth of firms goes back to Penrose (1959) and Chandler (1962) argued that decentralization was essential for the creation of large firms, because CEOs are constrained over the number of decisions they can make. As firms grow CEOs need to increasingly decentralize decision making power to their senior management. Prior evidence from US data in Bresnahan et al (2002) suggests that decentralized firms tend to have higher productivity and use information technology more intensively. Bloom et al (2009) confirms this finding, and also finds that larger firms are significantly more decentralized. This is important, because for capital and labor to be effectively reallocated across firms, productive firms need to grow large and take market share from unproductive firms. This reallocation is a major factor driving growth in developed countries like the US.<sup>4</sup> But in countries like China and India, where firms are typically quite centralized, average firm size is smaller, so that the most productive firms have a smaller market share.

Why are some companies more decentralized than others? To some extent, the size and

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<sup>4</sup> See, for example, Foster, Haltiwanger and Krizan (2000 and 2005) for the US, who show that about 50% of productivity growth in manufacturing and about 90% in retail comes from reallocation. Also see Banerjee & Duflo (2004), Hsieh & Klenow (2008), Pawasutipaisit & Townsend (2008).

growth path of a company determines how decentralized it needs to be in order to function, but there is substantial variation in decentralization even conditional on firm size (Bloom et al 2009). Some of the variation may be due to differences in the management philosophy and culture of company owners, including to religious differences which influence perceptions of authority relationships. In this paper, we review existing evidence and provide new evidence for an additional important explanation which applies in many developing countries: differences in basic judicial recourse and contract enforcement.

The link between law and decentralization at the firm level comes from the ability of owners and top executives to punish managers for misbehavior. Managers typically have better information than firm owners and top executives, but managers' incentives typically diverge from those of the firm. In particular, managers may have incentives to shirk or even to steal from the firm if they can avoid being caught or punished. Hence where legal recourse is weak, top executives will often not delegate important decisions, for fear of managers manipulating those decisions to private advantage.

To take a stark example, CEOs may be unwilling to delegate because of the fear of theft by their senior management and the inability of the judicial system to deal effectively with such crimes. As described below, it is common practices for the family firms in our long-term study of management to always leave one family member to manage the firm, even during major occasions like family weddings and funerals. In contrast, if a CEO can trust his senior managers and can be sure that the law will punish them for cheating he will be able to decentralize decision making more fully. This in turn will mean that the firm can expand its activities so that they are no longer constrained by the CEO's limited time availability.

### ***3.1 Evidence from large-scale firm surveys***

Consider Bloom et al (2009), who measure decentralization in a large sample of manufacturing firms using four basic types of questions. First, they recorded how much

capital investment a plant manager could undertake without prior authorization from the corporate headquarters (CHQ). Then they asked where decisions were effectively made in three other dimensions: (a) hiring a new full-time permanent shopfloor employee, (b) the introduction of a new product, and (c) sales and marketing decisions. They coded the answers into an overall index of decentralization.

This measurement tool can be used to understand how decentralization varies across countries and how it links to legal and institutional characteristics. The average firm in Greece , Japan, India or China is hierarchical and centralized, while the average firm in the UK, US or Sweden is flatter and more decentralized (Figure 2). A measure of decentralization which controls for industry mix is strongly positively correlated with measures of the rule of law across countries. Within countries, firms located in regions with higher social trust (as measured using questions in the World Values Survey) also are more decentralized than firms in areas with less trust. These empirical results are consistent with weak rule of law driving firms to centralize authority more, especially where social capital is relatively weak.

Figure 2.

## DECENTRALIZATION VARIES ACROSS COUNTRIES

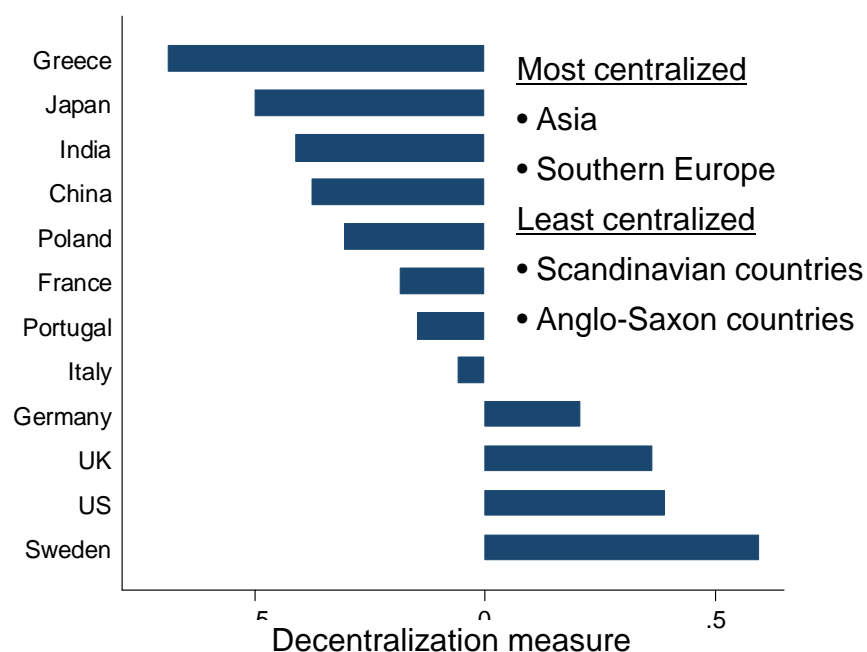


Figure 3.

## “INDUSTRY MIX” DECENTRALIZATION IS ASSOCIATED WITH TRUST & RULE OF LAW

Dep Var: industry mix decentralization				
	(1)	(2)	(3)	(4)
Trust (in region)	0.213*** (0.051)	0.215*** (0.035)	0.211*** (0.037)	0.052 (0.073)
Rule of Law (in country)		0.051*** (0.008)	0.049*** (0.014)	
Regional GDP per capita, Skills and Population controls	No	No	Yes	Yes
Country controls	No	No	No	Yes
Number of regions	97	97	97	97

Weighting by WVS share of obs within country.  
Data from regions in all countries except the US

Source: Bloom et al. 2009

### ***3.2 Evidence from a long-term study of Indian textile firms***

This paper uses detailed evidence from the pilot wave of a larger study of medium-sized textile firms in Maharashtra. The umbrella project itself is a six-month randomized management consulting intervention delivered by a team of full-time expert consultants from a top multinational firm, designed to allow estimation of the causal impact of modern management practices on firm performance and to shed light on why firms do or do not adopt modern management practices. The breadth and depth of the engagement provides us with virtually complete information about the firms' operations, as well as an on-the-ground picture of their interaction with laws and regulations.

It is important to be clear here. The case study evidence below does not provide a 'test' of our hypothesis, as all the firms are in the same country and face a very similar legal environment. Rather, it is meant to illustrate the striking centralization of functional responsibility and decision-making authority in these firms and to provide some anecdotal evidence linking this to top executives' inability to trust managers and to prosecute their misbehavior.

#### **The sample of firms**

The pilot wave includes six producers of fabrics and knitted and woven garments with a total of over 1,200 employees and \$25 million in annual turnover, and was run between August 2008 and February 2009. The main wave is starting in March 2009 with 25 firms split into treatment and control groups.

The firms were selected from a random sample of textile and garment firms in Maharashtra state, interviewed on their management practices using the standard tool described in Bloom and Van Reenen (2007), and asked whether or not they were interested in free management consulting sponsored by the research project. The firms which consistently expressed interest to the interviewers and in a follow-up call with one of the senior research team members were then screened on the ground by the consulting team and the academic research team. The participant list was finalized by this screening process, which verified firms' eligibility in terms of size (100-1000 employees), location (within three hours drive of the team's base of operations) and willingness to work closely with the team and share information freely.

The engagement itself is an 18-week intensive consulting service, provided by a full-time team of five consultants from a top multinational firm with a strong local presence in India, and run by a senior manager with experience running production operations in one of India's largest manufacturing companies. This extremely high standard for the intervention is required by the size and sophistication of these firms, which are run by wealthy, educated businesspeople and often have been in operation for 20-30 years. The service is designed to dramatically improve management practices in the participant companies, primarily around operations management and human resources management, as well as to document improvement in management and in operational performance with detailed, high-frequency data collection on dozens of indicators over a multi-year horizon.

Our consultants work on the factory floor with the senior managers and department heads on a daily basis. The first six weeks of the project was focused on diagnosis of management practices and upgrading of data collection systems. Weeks seven and eight focused on joint planning for improvement programs prioritized by potential impact and difficulty of implementation. Weeks nine through eighteen were spent helping the firms execute their improvement plans and stabilize and institutionalize new business processes. After week eighteen, the consulting team scaled back to a low-level monitoring and coaching role for the Wave 1 firms while preparing for the main phase of the project, the randomized-controlled Waves 2-3.

**Table 1.** Participating firms (pilot wave)

Firm code	Total # Employees	Turnover in \$US (FY08/09)	Products	Exports (%)
<b>E</b>	125	\$4m	Home textiles	0
<b>S</b>	90	\$1m	Children's garments	90
<b>H</b>	130	\$4m	Polyester fabrics	5
<b>R</b>	600	\$2m	Knitted garments	35
<b>B</b>	300	\$7m	Fabric for suits & shirts	0
<b>M</b>	130	\$6m	Fabric for suits	35

## The data

We have richly detailed data on our firms' key operations as well as detailed information and observations on the internal organization and dynamics of the firms. We focus here on the degree to which top executives trust and delegate responsibilities to managers and supervisors. We have specific data on:

- the amount of money which a production manager can spend on investments or spare parts without prior authorization from a top executive;
- the day-to-day functional responsibilities and decisions that executives take on, which would be taken by middle managers in a US firm of similar size;
- the share of various middle-managers' work that is closely supervised by top executives, which would be minimal (<10%) in a US firm of similar size;
- the degree of trust top executives place in various middle managers.<sup>5</sup>

In addition to this data, we have extensive observational evidence of the centralization of authority and its detrimental effects on our firms, some of which is discussed below.

Each of these data points were provided by the Accenture consultants who had been working full time in the company offices and factories for six months prior. This method of data collection has some significant advantages over a survey of the top executives themselves. In particular, because issues of delegation and decentralization have normative weight – several of the top executives have been to business school and most of them know that top-performing companies are known for being relatively decentralized – one might expect an executive to downplay the amount of time he spends micromanaging, even if the underlying reasons he micromanages are legitimate (e.g. lack of trust and legal recourse). Hence an response by an expert observer is likely more accurate than a self-response by an executive.

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<sup>5</sup> This is measured on a four-point scale: (1) top executives constantly worry about manager making inappropriate or malicious decisions; (2) sometimes worry about manager making inappropriate or malicious decisions; (3) usually trust manager to make appropriate decisions for the company; (4) fully trust manager to make appropriate decisions for company.



## Basic results

Table 2 provides a quick illustration of the involvement of the top executives of the firms in the day-to-day operations of their companies. The basic point is that top executives take responsibility for a wide range of day-to-day functions and decisions which deeply strain their time and energy. Some of these functions, like procurement, quality checking and accounting, are officially the responsibility of a middle manager, but top executives spend a large amount of time supervising and double-checking their work. Other day-to-day functions are almost exclusively reserved for top executives, such as bill verification, check clearing, sales and customer relationship management. The stack of paperwork on the managing director's desk at Firm B is literally two feet high.

It is typical that owners will “do everything” in very small businesses, but recall that these firms are of reasonable size, with between \$1m and \$7m in annual revenues and between 90 and 500 full-time employees. They have complex operations, many product lines, and dozens of customers and suppliers, and they execute a very large number of transactions both internally and externally. Top executives at manufacturing firms with 100+ employees in the US or UK would spend most of their time coaching and mentoring managers, reviewing performance and market data, making important strategic decisions, and intervening in limited functions where their expertise was particularly necessary. The huge amount of time spent by our top executives on day-to-day functions essentially prevents them from focusing on (or being able to handle!) growth and expansion.

Note the particularly tight control by top executives of functions which involve “money matters”: procurement, billing, and sales. The discretionary budgets allotted to production managers for the purchase of spare parts or capital equipment provides a perfect example. At firm B, the production manager can spend up to Rs 5000 (US \$100) for locally available spares, but must get clearance from top executives for any imported goods. This is the most permissive policy of any of our firms. At firm E, the budget is Rs 3500-4000 per month. At firm R, a maximum of Rs 1000 is allowed for critical purchases without prior approval. At firm H, all spending requires pre-approved authorization from a top executive, no matter the circumstances. At firm S, the smallest of the six, the owners make all spending decisions in person. In comparison, the production manager at the median firm in this same size range has discretionary spending authority of \$6,000 (US), \$6,250 (France, Italy), \$6,862 (UK), \$7,949 (Canada), and \$12,500 (Germany) according to the survey in Bloom et al (2009).

Table 3 illustrates the percentage of various managers' day-to-day work which is closely supervised or double-checked by a top executive across the six firms, where relevant. These numbers are extraordinary, and reflect the large involvement of top executives in day-to-day activities highlighted in Table 2. For example, executives appear to directly watch over 30-40% of the day-to-day activities of production managers, and up to 70% of the activities of sales managers. Company E actually has a "production coordinator" whose specific role is to monitor the work of the production manager and factory department heads and report back to the managing director. Company B's factory administrator has additional substantive responsibilities but serves a monitoring/reporting role as well.

Table 4 provides the Accenture consultants' judgment of the level of trust the companies' top executives hold in the relevant middle managers.<sup>6</sup> Out of 25 middle managers, most received scores of 2 (some worry about the manager making inappropriate or malicious decisions) or 3 (usually trusts manager to make appropriate decisions for company). Two fellows actually received the lowest possible score of 1, corresponding to a constant worry on the part of the executive about the manager making inappropriate or malicious decisions. A third received a 1 from the perspective of one of the two MDs and 2 from the other. The fact that these guys are employed at all is pretty astounding. Only one manager (company B's factory administrator) receives a score of 4, corresponding to full trust, but he is a relative of the company owner assigned specifically to watch over "money matters" at the factory. On the whole, fewer than half of the middle managers in our companies appear to be viewed as basically trustworthy.

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<sup>6</sup> As a reminder, this is measured on a four-point scale: (1) constantly worries about manager making inappropriate or malicious decisions; (2) sometimes worries about manager making inappropriate or malicious decisions; (3) usually trusts manager to make appropriate decisions for the company; (4) fully trusts manager to make appropriate decisions for company.

**Table 2. Day-to-day Responsibilities**

	<b>B</b>	<b>M</b>	<b>E</b>	<b>H</b>	<b>R</b>	<b>S</b>
Materials procurement	Y	Y		Y	Y	Y
Bill verification	Y	Y		Y	Y	Y
Product development	Y			Y		Y
Day-to-day sales	Y	Y	Y	Y	Y	Y
Finance & accounting				Y	Y	Y
Deliveries, customer service		Y		Y	Y	Y
Quality checks, production mgmt		Y		Y		Y

**Table 3. Manager supervision**

<b>Manager</b>	<b>Firm code</b>					
	<b>B</b>	<b>M</b>	<b>E</b>	<b>H</b>	<b>R</b>	<b>S</b>
Production	30%	30%	40%	**	40%	**
Factory admin / production planner	40%	-	40%	-	-	-
Procurement / RM manager	80%	30%	30%	-	-	60%
Department head 1	0%	30%	30%	30%	20%	40%
Department head 2		-	-	-	20%	40%
Sales manager		40%	70%	30%		60%
Exports manager	-	30%	-	-	30%	60%
Finance manager	20%	40%	-	30%	-	60%

\*\* Firms S and H do not have production managers. Top executives manage operations single-handedly.

**Table 4. Manager trust**

<b>Manager</b>	<b>Firm code</b>					
	<b>B</b>	<b>M</b>	<b>E</b>	<b>H</b>	<b>R</b>	<b>S</b>
Production	2	1.5	1	-	2	-
Factory admin / production planner	4	-	3	-	-	-
Procurement / RM manager	-	2	3	-	-	3
Department head 1	-	-	3	2	3	3
Department head 2	-	-	-	-	2	3
Sales manager	-	1	3	2	-	3
Exports manager	-	3	-	-	3	3
Finance	3	2	-	2	-	3

Basic factory operations is an area where top executives of mid-sized companies in the developed world would rarely be involved on a day-to-day basis. A factory ordinarily has a general manager who is responsible for day-to-day operational and financial decision-making in the factory, including ordinary procurement and expenses management, who would report to a senior executive.

The issue of trust and lack of legal recourse inserts itself sharply here. At firm B, the owner recently fired his previous factory manager, who he discovered systematically misreporting the performance of the factory, probably in order to redirect money to himself. The current factory manager is not in charge of any “money matters” at the factory; all decisions related to spending money at the factory are taken by a factory administrator who is a relative of the owner. The owner personally controls the distribution of expensive imported spare parts. He locks them in his office and factory manager needs owner’s consent to use them. Similarly, at firm S, there was very recently a case of a middle-manager sharing sensitive cost information (a project requisition) with the firm’s competitors. This manager was promptly fired by the owner, but no additional recourse was available.

At firm H, there is no production head or factory manager. Daily factory operations are entirely run by the top family executives with one family member in charge of production. Recently, two family members tried to learn operating areas related to programming one of the types of heavy machinery in the factory, so that they could personally check the setting of the machines. The key supervisors and managers have been with the firm for 20-30 years but have not had any significant growth in job responsibilities.

At firm E, there is very little trust between the owner and the production manager. Since the owner himself does not visit the factory often due to age and health, he has appointed a ‘production coordinator’ who acts as a link between himself and the factory. However, at Accenture’s suggestion the owner is working to achieve greater decentralization *within* factory management. He has formed a 6-member core plant team which meets twice every week to discuss production related issues. This team includes the production manager, the

production coordinator, and four department heads (weaving manager, yarn manager, quality head and production planner). The team now jointly discusses issues to arrive at solutions, while earlier all decisions were unilaterally made by the production manager.

At firm R, all transactions (including factory procurement) are solely controlled by the top executives. The owners of firm avoid sharing commercial details of prices of their products and P&L on products with their key managers out of fear that the managers will use that information to their own private advantage.

In the six companies studied here, top executives hold near-exclusive responsibility for customer relationships, pricing negotiations and sale approvals. Firm R's owner performs all sales functions personally. Firm M has a domestic sales manager but is spending an increasing amount of time monitoring his activities given poor apparent performance. Firm B has no sales manager, and one of its owners is heavily over-burdened with sales responsibilities. He uses local sales agents to penetrate the company's dispersed rural markets for lower-end fabrics, but these sales agents are heavily constrained in their negotiating authority and are tightly overseen from the center. Firm E is the main exception, in which day-to-day sales responsibility is delegated to sales reps, but the latter have no decision-making authority over price even though the company sells a huge number of designs in many different markets.

Day-to-day finance, accounting and clearing functions are similarly controlled by top executives. Firm R's owner clears all transactions personally. The owner of Firm B has faced several significant cases of theft by company administrators, and now personally checks each and every bill as well as all attendance records, even though he complains of this as a waste of his time. Firm M's top executive takes lot of time to verify and clear all of the company's bills, even though much of the time he is unable to verify a bill properly and just signs it anyway. On Accenture's advice, he is now considering setting up system for the same to delegate some authority to Finance manager, though he worries about the potential consequences.

## 6. Conclusions

A large literature has focused on the impact of the legal environment on national productivity and growth. This appears to find a robust result that better enforcement of laws is associated with higher levels of productivity and growth. Various channels have been proposed, including facilitating long-term finance, improving the efficiency of economic exchange and reducing idiosyncratic contract risk. In this paper we focus on another channel, which is the impact of law on the internal organization and size of firms.

Existing evidence suggests that firms in countries with stronger rule of law and regions with higher levels social capital tend to be more decentralized and larger. We provide detailed case-study evidence from mid-sized textile firms in Maharashtra (India), illustrating that their top executives are unwilling to delegate decision-making to middle-management. Our conversations with executives suggest that they fear misappropriation of firm assets by middle-management because of weak legal recourse. For example, if they let middle manager undertake large investment decisions they fear their managers could buy equipment at inflated prices from firms controlled by other members of their family.

Since CEOs can not easily delegate decisions, they are less able to expand their firms given their limited capacity for decision making. Managing larger growing firms is more complex and requires CEOs delegate some of the more mundane day to day decisions to their management team. The fact that Indian CEOs appear unwilling to do this can help explain why Indian firms are smaller on average than those in the US or Europe. It can also help explain why there is less reallocation of capital and labor from low productivity to high productivity firms in India, since successful firms find it harder to grow. As a result contract enforcement in Indian appears to play a potentially central role in reducing productivity and growth.



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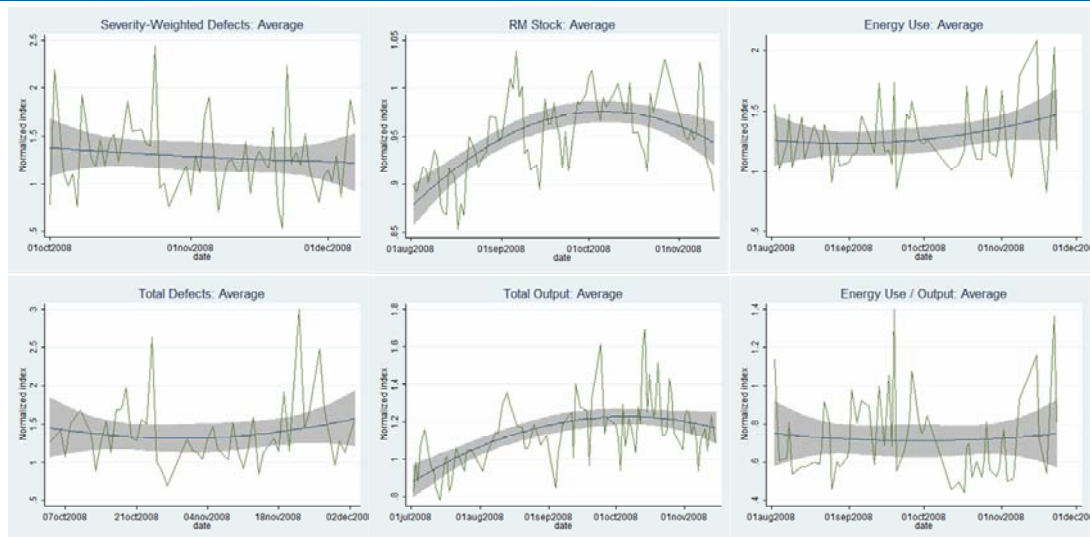
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## Data collection: all-company averages



## Lack of knowledge and capabilities are the most frequent root causes of poor management practices

