an extremely detailed set of performance metrics on the firms to understand the productivity benefits of improved management.

The initial evidence suggests that Indian factories are typically disorganised and often unsafe (see Picture 1), with inventories chaotically organised (see Picture 2), extremely limited performance tracking (see Picture 3) and poor quality control leading to a massive waste of manpower of quality checking and repair.

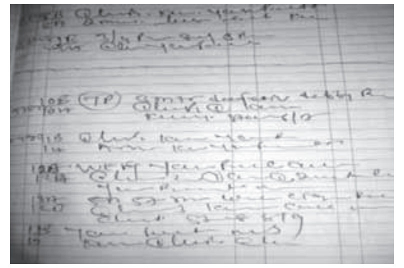
Accenture has started to address these issues by introducing the types of basic operational practices that are standard in European, Japanese and US factories, leading to a rapid improvement in performance.

So in summary, management practices in developing countries appear extremely poor on average, and this appears to hold back economic growth. But good management is a technology and can be spread to developing countries through good policy and direct assistance. This should help firms in developing countries to improve productivity and grow, enabling India to replicate China's stunning success in reducing poverty.

Picture 1 – Many Parts of the Factories Are Dirty and Unsafe

Picture 2 – Inventories Were Very Disorganized, So That Firms Typically Had More Than Six Months of Yarn Inventory

Picture 3 – Production Information Is Collected but Is Rarely Stored Electronically or Analyzed



Further Reading

Nick Bloom and John Van Reenen (2009) "Why do management practices differ across firms and countries?" forthcoming *Journal of Economic Perspectives*

Nick Bloom and John Van Reenen (2007) "Measuring and explaining management practices across firms and nations," *Quarterly Journal of Economics* 122(4): 1351-408 (earlier version available as CEP Discussion Paper No. 716: *http://cep.lse.ac.uk/pubs/download/dp0716.pdf*

Nick Bloom, Benn Eifert, David McKenzie, Aprajit Mahajan, and John Roberts, (2009) "Management as a technology: evidence from India," Stanford mimeo: *http://www.stanford.edu/~nbloom/India_Pack.pdf*

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Permit No. 28

Stanford University • September 2009

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Managing Development in India

By Nick Bloom

Poor management practices in India and elsewhere are holding back economic growth. But good management is a technology: It can be spread through good policy and direct assistance. And it should help firms in developing countries to make significant productivity improvements.

The biggest single reduction in poverty in the history of mankind was achieved by the industrialisation of China from 1978. About 300 million people were lifted out of poverty in 30 years, an improvement in human welfare on an unprecedented scale.

India has yet to achieve this level of poverty reduction through growth, a primary reason for which is that its manufacturing firms have not achieved the rapid productivity gains seen in Chinese firms in the 1990s and 2000s. Improving Indian management practices could therefore play an important role in addressing this failing. This represents one of the simplest, and potentially most effective, development tools.

Measuring Management Practices

In recent years, I have been involved in a large international project with SIEPR at Stanford University and the CEP at the London School of Economics to investigate and compare management quality in China, India and a number of developed countries (Bloom and Van Reenen, 2009). During the summer of 2006, our team contacted over 4,000 medium-sized manufacturing firms across Europe, India, Japan and the United States and spoke directly with plant managers about their firms' management practices. In the summer of 2007, we extended this survey to China.

Measuring management in a systematic way requires codifying the concept of good and bad management into a measure applicable to different firms. We used an interview-based management practice evaluation tool that

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About the Author

Nick Bloom is an assistant professor of economics at Stanford University and a research fellow of SIEPR. He works on the impact of uncertainty on economic activity (very much linked to the current credit crunch), innovation and management and organizational practices across countries. He previously worked in McKinsey & Company, and HM Treasury at the London School of Economics.

defines and scores from 1 (worst practice) to 5 (best practice) across 18 of the key management practices that appear to matter to industrial firms, based on McKinsey's expertise in working with thousands of companies across several decades. (For full details of the survey methodology, including all the questions, see Bloom and Van Reenen, 2007.)

The 18 practices fall into four broad areas:

- Shopfloor operations: Have companies adopted both the letter and the spirit of lean manufacturing?
- Performance monitoring: How well do companies track what goes on inside their firms?
- Target setting: Do companies set the right targets, track the right outcomes and take appropriate action if the two don't tally?
- Incentive setting: Are companies hiring, developing and keeping the right people and providing them with incentives to succeed?

For each company in the study, researchers interviewed one or two senior plant-level managers, who knew only that they were taking part in a "research" project. These managers were selected because they are senior enough to have a reasonable perspective on what happens in a company but not so senior that they might be out of touch with the shopfloor. The interviews relied on open questions and the interviewers were trained to probe for details of practices on the ground.

The interviews were run by an international team of 47 postgraduate students (mainly MBAs), who worked from CEP in a specially created survey centre during the summer of 2006. This was a 24-hour operation since the Chinese day starts at midnight in London, just before managers on the West Coast of the United States pack up to go home.

The Average Chinese and Indian Firms Are Poorly Managed

The research finds that comparing across all the countries in the sample, the average management scores for Chinese and Indian firms are the lowest (see Figure 1). Despite recent media attention for the impact of principles of lean manufacturing in China and India, both countries still lag behind in terms of modern manufacturing techniques and practices. Their firms also underperform in terms of incentive structures and people management.

Figure 1 – Chinese and Indian Firms Are the Worst Managed on Average

Average score on the 18 management practice questions (1=worst practice, 5=best practice) by country

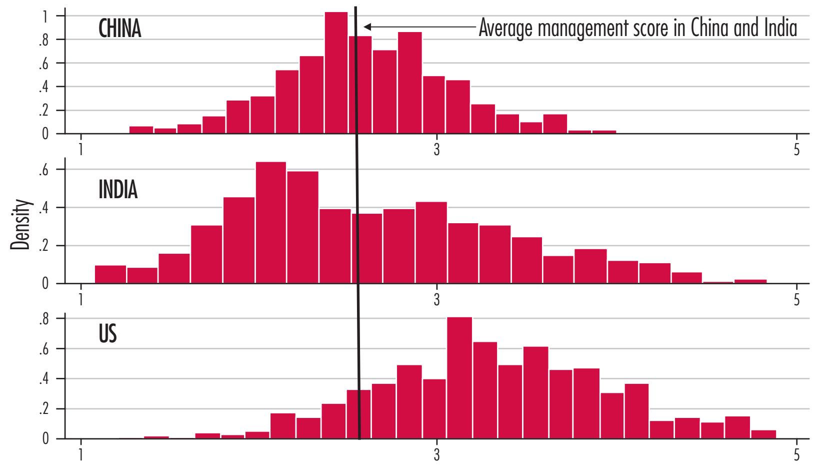
By comparison, firms from more developed countries — Germany, Japan, Sweden and the United States — are well managed. France, Italy, Poland and the U.K. are all solidly mid-table, while worryingly for Portugal and Greece, their management practices appear to be only slightly better than those in China and India. This suggests that the OECD countries' advantages in management should not be overstated and that China and India may be catching up.

What's more, although the average Chinese and Indian firm perform badly, this disguises tremendous variation in management practices within each country. The best Chinese and Indian firms are as well managed as those in the United States (see Figure 2).

Indeed, rather alarmingly for the Americans, many of their firms are actually worse managed than the average Chinese and Indian firms. We find that about a 15 percent of U.S. firms are more poorly managed than the average Chinese and Indian firm. And while roughly one-third of these well-managed Chinese and Indian firms are foreign multinationals, two-thirds are excellently run domestic firms.

Figure 2 – The Average Chinese and Indian Firm is Better Managed Than About 15% of U.S. Firms

Average score on the 18 management practice questions (1=worst practice, 5=best practice) by country



Another notable result illustrated in Figure 2 is the marked variation in management practices in India, especially in comparison with China. While India has a large upper and lower tail of over- and underperforming firms, Chinese firms are solidly clustered slightly below average.

The domestic Indian firms with poor management practices are typically family firms that practice *primogeniture* (handing down the CEO position to the eldest son). They stand in sharp contrast with some of India's well-known industrial giants, which operate using world-class management practices.

Which Firms Are Doing It Right?

To understand why China and India have these underperforming firms with poor management practices, we segmented the firms by broad ownership category. We find that multinational firms are well managed everywhere. These firms are typically the Chinese and Indian manufacturing operations of successful European, Japanese and U.S. firms, which have transferred their world-class management practices abroad.

In stark contrast, foreign joint ventures—in which foreign and domestic firms share ownership—tend to struggle. Most of these ventures are located in China. They date from regulations introduced in 1979, which required foreign investors to set up joint ventures with local firms in order to gain entry to the market. (It was not until 1986 that the first wholly owned foreign enterprise was established.)

Given the complex management structures that shared ownership entails (multiple layers of domestic and foreign management and shareholder boards), managerial clashes seem to have plagued the management of operations and incentives. Combined with the inherent cultural and language clashes, these foreign joint ventures adopted substantially worse management practices than even many domestic firms.

Other firms that are poorly managed are those owned and run by families. Such firms are particularly common in India but rare in China (there has been a more recent drive towards private family ownership in China, but this was difficult prior to 1979). Given the difficulties of separating ownership from control in India (arising from problems in the legal system), family firms rarely bring in external management.

Government firms are also extremely badly run in both countries (and indeed across all the countries in the sample), with particularly weak management of workers and a lack of modern manufacturing techniques.

In recent years, there has been a strong push in former Chinese state-owned firms towards dispersing ownership among their workers. With reforms to India's legal system, government and family-run firms may diminish in importance in both countries. This may pave the way to a brighter future for their manufacturing sectors if firms can adapt their practices to match those of their competitors.

Evidence From India Suggests That Lack of Knowledge Drives Much of the Management Gap

In recent research with Benn Eifert at Berkeley, Aprajit Mahajan and John Roberts at Stanford University and David McKenzie at the World Bank, I have started fieldwork in India with 20 textile firms of about 300 employees each to evaluate management practices directly on the ground (Bloom et al. 2009). The project involves giving these firms an initial management diagnostic phase and then three months of free consulting, all provided by Accenture, the international consulting firm.

To evaluate the impact of this on firm performance, we have been collecting

continued on flap...

Figure 3 – Foreign Multinationals Are Well Managed in China and India, but Foreign Joint-Ventures Are Not Well Managed

Average score on the 18 management practice questions (1=worst practice, 5=best practice) by country