

IGC Report: Does management matter? Evidence from India

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Research Aims:

Economists have long puzzled over why there are such astounding differences in productivity across both firms and countries. For example, GDP per capita in the US is about ten times that of India. A natural explanation for these productivity differences lies in variations in management practices.. But economists, policy makers and even business people have long been sceptical of the importance of management.

One reason for their scepticism is the belief that competition will drive badly managed firms out of the market. As a result any residual variations in management practices will reflect firms' optimal responses to differing market conditions. For example, firms in developing countries may not be adopting quality control systems because wages are so low that repairing defects is cheap. Hence, their management practices are not “bad”, but just adapted to local conditions.

A second reason for this scepticism is the complexity of management, making it hard to measure and quantify. However, recent work has down-played the “soft skill” attributes of good managers – which can be difficult to measure, let alone change – in order to focus on specific management practices like performance monitoring and incentives. For example, I have been involved in a large project measuring management practices across firms and countries, finding large gaps in management practices between developing countries and the US and Europe (see Figure 1).

So in this project we used field experiments to evaluate if these management differences causally led to differences in performance. To do this we improved the management of a randomly selected group of large Indian textile firms and compared the impact to another randomly selected group of similar control firms. In summary, we found better management led to massive improvement in productivity and performance, suggesting that bad management is a key factor holding back the growth of developing countries like India.

Summary of the Project:

In IGC funded research we undertook a management experiment in India with 20 textile firms of about 300 employees (see exhibits 2 and 3). The project involved giving these firms an initial management diagnostic phase and then four months of free consulting from a major international consulting firm (see Bloom et al. 2010 for details).

To evaluate the impact of this on firm performance, we have been collected extremely detailed performance metrics on things like output, inventory and quality at the firms to understand the productivity benefits of improved management. The evidence suggests that Indian factories are typically disorganised, with inventories and spare parts chaotically organised, inadequate performance tracking, and extremely poor quality control (see Exhibits 4 to 8)

Our partnering international consulting firm started to address these issues by introducing the types of basic operational practices that are standard in European, Japanese and US factories (see Exhibit 9). These had massive impacts on performance, cutting quality defects by 50%, inventories by 40% and increasing overall productivity by 10%. This also increased firms profits by about \$200,000, and by improving the ability of owners to expand their firms.

This raises the obvious question of why these practices had not been adopted before? Our evidence suggests that one important factor was informational constraints – the Indian firms

were not aware of the importance of common modern management practices. This is perhaps not entirely surprising. Management practices evolve gradually over time, with innovations like the Taylor's Scientific Management, Sloan's M-form corporation and Toyota's lean production spreading slowly across firms and countries. For example, the US automotive industry took at least two decades to understand and adopt Japanese lean manufacturing. And the British fell behind the Americans in the 1800s by failing to adopt the American System of Manufacturing.

A related question is why product market competition does not drive these badly managed firms out of business? One reason is the reallocation of market share to well managed firms is restricted by span of control constraints on firm growth. In every firm in our sample all senior managerial positions are held by members of the owning family. The number of adult males available to fill senior positions thus becomes a binding constraint on growth. For example, the owner of one of these best managed firms in the sample told us the reason he could not expand was “no sons, no brothers”. Hence, well managed firms do not always grow large and drive unproductive firms out of the market if they lack male family members. Meanwhile, entry is limited by a lack of finance, while imports are restricted by heavy tariffs.

Policy Lessons for India and beyond

We think there are three key policy lessons from the study:

A) Competition and foreign investment drive productivity growth. These Indian firms are typically poorly managed because foreign competition is restricted – for example Chinese imports face 50% tariffs – and foreign ownership is restricted. If these were made a lot easier Indian firms would be forced to catch-up with the World frontier on management practices

B) Rule of law is essential for firms to grow. Many of our best managed firms can not grow because of an inability to decentralize decision making to non-family members. This is because the courts are so overwhelmed that prosecutions against fraud are extremely hard, making owners wary of letting outside managers have much control over the firm. As a result owners do not give key management roles to non-family members, thereby missing out on job creation.

C) Basic management training would improve productivity. Many of the shortfalls with Indian management practices could be addressed through more widespread basic management training. For example, industry, government and university provision of 3-month operations management training courses.

Finally, we should point out that while we ran our study in India, the evidence on management practices presented in Figure 1 suggests similar issues will arise in other developing countries. In particular, my suspicion is that Indian firms are likely to be better managed than most African firms (since these rarely export into world markets) making the potential impact of better management on development even greater there.

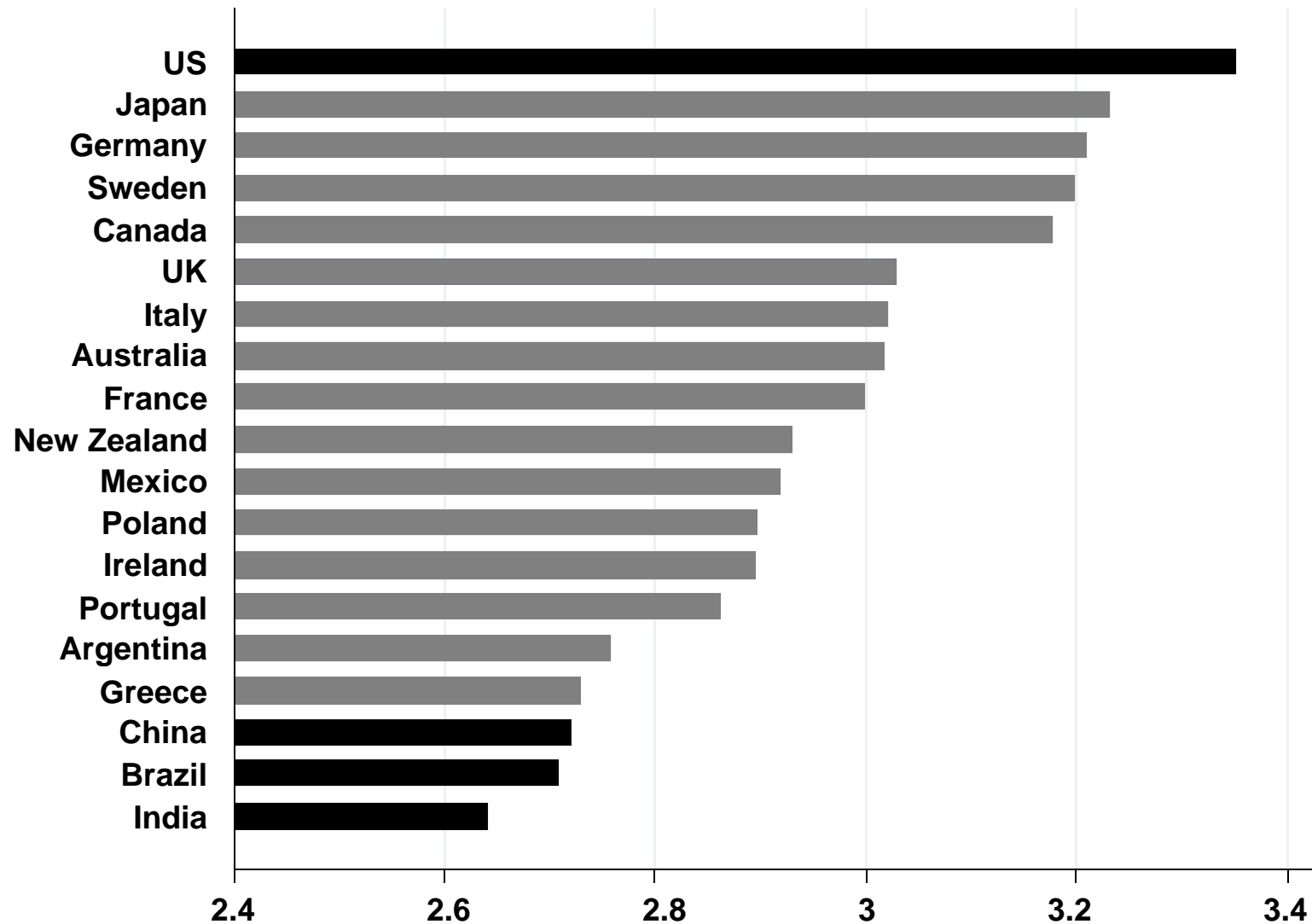
Further reading:

Nick Bloom and John Van Reenen (2009) “Why do management practices differ across firms and countries”, Journal of Economic Perspectives

Nick Bloom, Benn Eifert, David McKenzie, Aprajit Mahajan, and John Roberts, (2010) ‘Does management matter’, Stanford mimeo: <http://www.stanford.edu/~nbloom/DMM.pdf>

www.worldmanagementsurvey.com

Exhibit 1: Developing country firms are badly managed on average



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

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Source: Bloom and Van Reenen (2010, Journal of Economic Perspectives) and www.worldmanagementsurvey.org

Exhibit 2: Factories are large compounds containing several buildings.



Factory surrounded by extensive grounds



A group of three buildings within a factory compound



Factory offices (left) and goods loading bay (right)



Factory entrance with gates and a guard post

Exhibit 3: These factories operate 24 hours a day for 7 days a week producing fabric from yarn, with 4 main stages of production



(1) Winding the yarn thread onto the warp beam



(2) Drawing the warp beam ready for weaving



(3) Weaving the fabric on the weaving loom



(4) Quality checking and repair

Exhibit 4: Many parts of these factories were dirty and unsafe



Garbage outside the factory



Garbage inside a factory



Flammable garbage in a factory



Chemicals without any covering

Exhibit 5: The factory floors were disorganized

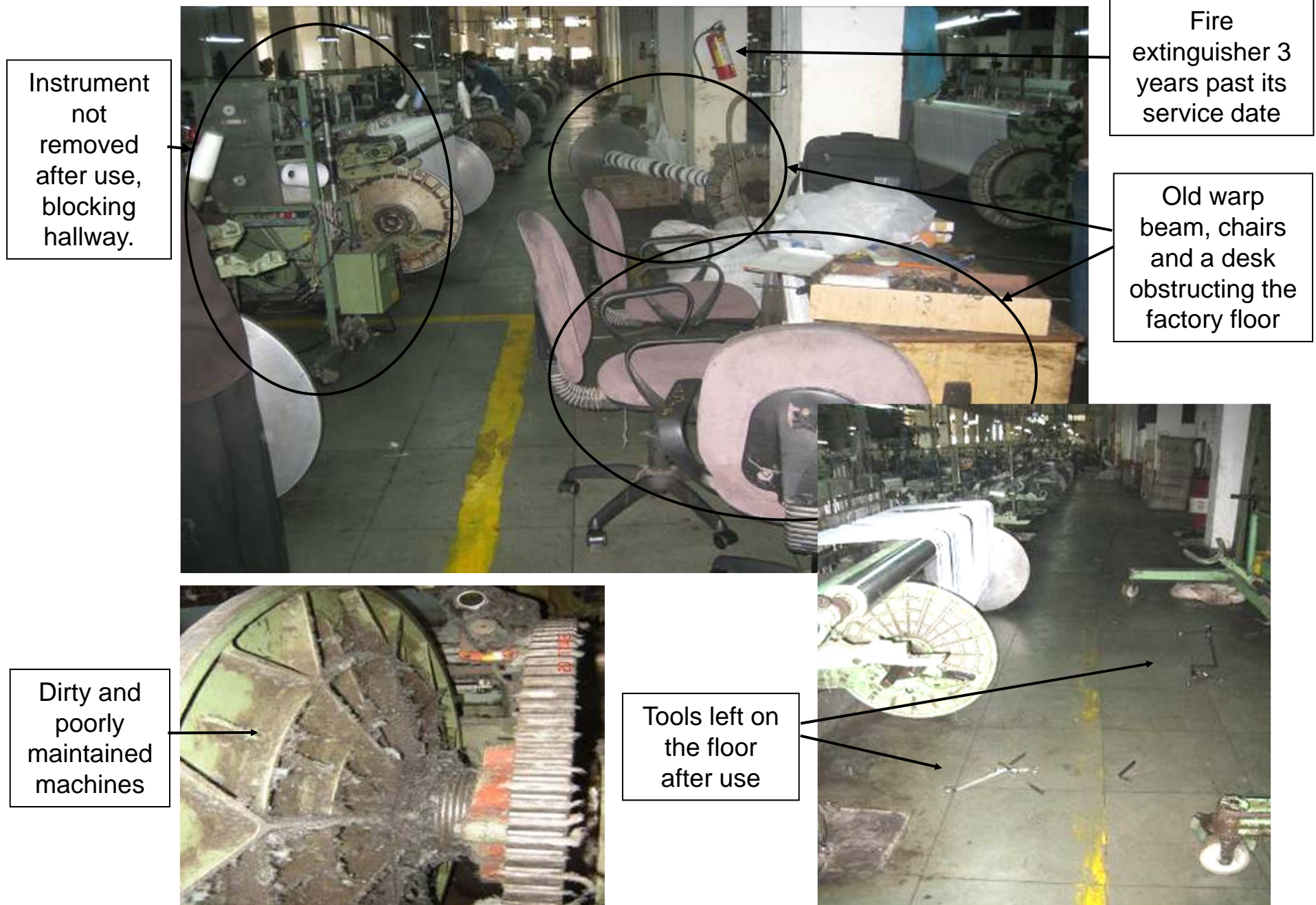


Exhibit 6: The inventory rooms had months of excess yarn, usually without any formal storage system or protection from damp



Yarn without labeling, order or damp protection

Different types and colors of yarn lying mixed



Yarn piled up so high and deep that access to back sacks is almost impossible

Exhibit 7: The parts stores were also disorganized and dirty



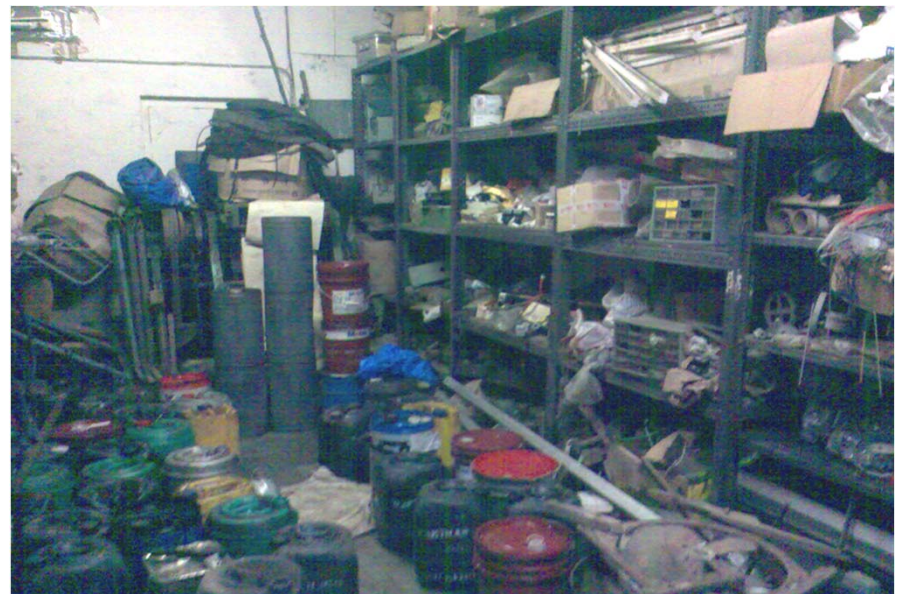
Spares without any labeling or order



No protection to prevent damage and rust



Spares without any labeling or order



Shelves overfilled and disorganized

Exhibit 8: Quality was so poor that about 20% of manpower was spent on repairing defects at the end of the production process



Large room full of repair workers (the day shift)



Workers spread cloth over lighted plates to spot defects



Defects are repaired by hand or cut out from cloth



Non-fixable defects lead to discounts of up to 75%

Exhibit 9: New management practices led to rapidly improving productivity, profitability and firm growth

Inventory was placed in bags (to stop the yarn rotting), and on metal shelves (to stop the yarn cones getting crushed). The yarn was organized on the shelves by color and thread, labeled and entered into a computer to facilitating the tracking of yarn inventory. These basic practices led to a 30% reduction in inventory levels. →



← Tools and spare parts organized by function and location, part of the basic operations management processes helping to increase output by almost 10%. →

