Management practices in the private sector: A summary of IGC research

Highlights of the IGC's research over the past 10 years

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The substantial productivity differences between workers and firms in developed and developing countries have long interested development economists. Unexplained productivity gaps are a major focus for economists seeking to explain the severe income disparities between rich and poor countries. Similarly, stark productivity differences are reflected between firms within countries. Recent evidence has recognised the importance of effective management for firm productivity. Many developing country firms have poor management practices. This can, in part, explain the difference in productivity between developed and developing countries (Bloom et al. 2013). Improving management practices can increase firm productivity and profitability and support innovation in firms, thereby increasing incomes and jobs available, and contributing to sustainable economic growth in developing countries.

In recent years, research has aimed at filling a substantial gap in quantitative data evaluating management. The IGC has funded a number of projects to contribute to this work, importantly extending the assessment of management to developing countries, and identifying the link between management and productivity. In particular, IGC projects have focussed on management in the garment sectors, the use of incentives by firms, and the influence of the financial literacy of managers.

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1. Assessing management

IGC funded research has assessed the state of management practices in developing countries and its link to productivity in firms. A series of IGC projects have used internationally comparable methodologies for assessing management, including the Management and Organisational Practices Survey (MOPS) and the World Management Survey (WMS), to assess the state of management practices in IGC countries. The MOPS approach, pioneered by Bloom et al (2013) for US manufacturing plants, defines and scores a set of 18 basic management practices from 1 ("worst practice") to 5 ("best practice") to provide an internationally comparable dataset. These practices are standard in American, European, and Japanese firms in the areas of factory operations, quality control, inventory, human resources, and sales and orders.

Measuring management in developing countries

- Management practices in the manufacturing sector in Pakistan **(Nick Bloom, Renata Lemos, John Van Reenen, Raffaella Sadun, and Daniela Scur, 2016).** In collaboration with the State Bank of Pakistan (SBP), the Central Bank, and the Pakistan Bureau of Statistics (PBS), IGC researchers in Pakistan conducted the first rigorous empirical analysis of the determinants of management practices in a developing country using the MOPS approach. While they identified a strong positive relationship between adoption of structured management practices and measures of firm performance such as productivity, profitability, and growth, they also found a wide dispersion of management quality across provinces. In particular, terrorism, by degrading managerial capacity, was found to undermine economic growth. Based on the findings from this research, the Government of Pakistan updated the narrative of its five-year plan to focus more on productivity-enhancements in Pakistan's economy. In 2018, the MOPS was appended to the Census of Manufacturing Industries and the researchers are now working with policy stakeholders to extend the survey to the banking sector.

- Management practices in the manufacturing sector in Mozambique **(Renata Lemos, John Van Reenen, Nick Bloom, 2014).** IGC analysis of management practices in Mozambique found the country at the bottom of an international management index versus other African countries and other middle- and high-income countries. The researchers used the World Management Survey which collected management data for over 13,000 firms worldwide. Other African, IGC countries included in the survey also provided low management scores, with Ethiopia, Ghana, Tanzania, and Zambia filling the four next positions respectively on the index. Management practices were found to vary widely with well-managed and badly-managed firms co-existing alongside each other. Researchers identified high informational barriers to adoption and low workforce skills as key contributors to the low management practice ranking. Following interest from the institute for SMEs in Mozambique (IPEME), an IGC funded scoping project was initiated to assess the viability of a management training and consulting experiment in the construction industry.

Management and productivity

- Making good management stick: Evidence from India **(Nick Bloom, Aprajit Mahajan, David McKenzie, John Roberts, 2010).** In India, an intervention designed by IGC researchers provided free consulting on modern management practices to a randomly selected group of textile manufacturing firms. The results, published in the Quarterly Journal of Economics, found that firms adopting these management practices increased their average productivity by 17% and led to them opening more production plants. The findings suggested that a lack of awareness of modern management practices, acts as a key obstacle to their adoption. Follow-up research eight years after the original intervention revealed the impact of management practices on the productivity of the Indian firms persisted.
- Management quality, productivity and profitability in manufacturing firms in Zambia **(Koyi Grayson, Mushiba Nyamazana, Patricia Funjika, 2016).** An IGC survey of 200 manufacturing firms in the Lusaka and Copperbelt provinces of Zambia, demonstrated that quality management practices significantly impact productivity and improve firm profitability. The researchers consequently supported the Ministry of Labour and Social Security to assess the viability of national productivity centres in the sub-regions of Zambia.
- Improving credit supply **(Nicola Limodio, Francesco Strobbe).** In Ethiopia, an IGC study assessed bank branches' management practices and their impact on the credit supply to productive sectors. The project found that bank branches adopting better management practices serve larger geographic areas, providing more credit to firms, asking for lower collaterals, and experiencing lower default rates.

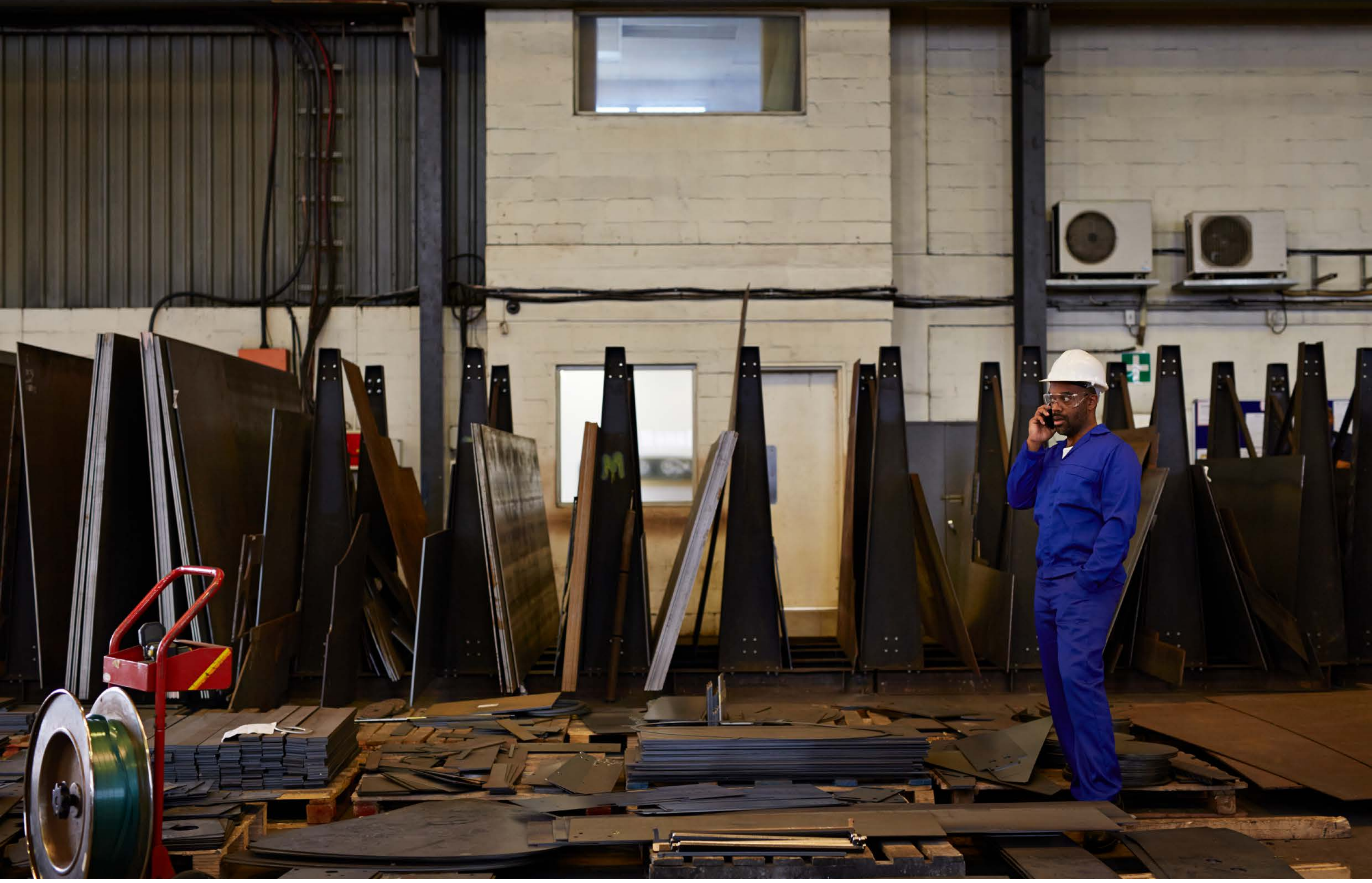
- **What do Indian CEOs do? Time use of Indian top executives: Determinants and implications for growth (Oriana Bandiera, Andrea Prat, Raffaella Sadun, Renata Lemos, 2014).** An IGC study matched CEO time use data to firms' balance sheets from 357 listed Indian manufacturing firms. The researchers found considerable variation in how CEOs allocate their time. Firm productivity is higher when CEOs work longer hours with a strong correlation between productivity and planned time with firm employees, in particular those involved in production, finance, and labour relations. The research provides a way to prioritise policy interventions by measuring the most binding constraints faced by CEOs.

2. Management in the garment industry

A number of IGC projects have assessed management practices in the garment industry. The garments sector is a vital part of some IGC countries' economies and holds significant potential to contribute to improving the levels and quality of employment in these countries. In Pakistan, an IGC study on the garment sector assessed the prevalence of managerial innovation, while a separate survey identified a difficulty in obtaining middle managers as a significant challenge for firms. As a key sector for female labour force participation, IGC research has also focussed on improving roles for women in the garment industry.

Improving female labour force participation

- **Gender empowerment and productivity in the garment sector (Christopher Woodruff, Rocco Macchiavello, Andreas Menzel, Farria Naeem).** An IGC evaluation of a supervisory training pilot in garment manufacturing firms in Bangladesh found that women were (55%) less likely to be tried out or promoted as managers than men (85%), despite women trainees performing better than male trainees in management simulation exercises. Although employee trainee exit rates were enough to cause concern for factories 10 months after the intervention, male and female retention rates were similar, and enough to indicate that long-term investment in training offered win-win scenarios for both workers and firms. Indeed, two firms voluntarily adopted the training programme post-intervention. The researchers discussed the findings with a number of key private sector and international organisations, including the International Finance Corporation (IFC) and Better Work Bangladesh, consequently rolling out a tailored training programme based on the intervention.



3. Using incentives

IGC research has looked at improving firm productivity through the use of incentives. The research focuses both on incentives to improve the quality of job applicants and the performance of firm workers.

- Do managers use financial incentives effectively? Evidence from a field experiment in urban Ethiopia **(Simon Quinn, Stefano Caria, Girum Abebe, 2015).** In Ethiopia, an IGC study found that a small monetary incentive for applications for a clerical role improved the quality of applicants, but that this effect was underestimated by firm managers. Making it easier for low-income individuals to participate in the labour market improves the allocation of talent in an economy, while firms benefit from access to the group of high-talent, low-income jobseekers.
- Incentives and productivity: Work groups vs. production lines **(Christopher Woodruff, 2013).** In Pakistan, an IGC scoping project evaluated the role of incentives in worker performance in a fan manufacturer. The researchers found a positive impact of short-term financial incentives on attendance. Consequent research expanded the experiment from an initial eight to 22 production lines and aimed to assess the impact of shifting teams from batch to assembly lines, including introducing female workers to the assembly line for the first time.
- Culture and incentives: A cross-country field experiment **(Greg Fischer, Oriana Bandiera, 2013).** A cross-country field experiment by IGC researchers studied the use of performance rewards in Ghana, India, and the Philippines. Evidence suggests that firms in developing countries are less likely to adopt

such "good" HR practices. The researchers found both team and individual incentives have the potential to increase productivity, though pay linked to individual productivity is most effective. Performance rewards do though increase inequality in the workplace, the cost of which should be weighed against increased productivity.

4. Financial literacy of managers

Several IGC funded projects have focussed on the impact that the financial literacy of managers has on firm productivity. Research suggests managers with financial expertise allocate their firms' financial resources more efficiently. IGC studies' assess this link and interventions targeted at improving the financial literacy of managers.

- Financial literacy of managers and the efficiency of capital allocation in corporations **(Cláudia Custódio, Daniel Metzger, Diogo Matos Mendes, 2019).** An IGC project surveyed 59 large firms in Mozambique to investigate whether a link exists between the financial expertise of top executives and the financial policies and performance of the firms. Executives with previous exposure to finance were found to use more sophisticated techniques in the production of financial policies.
- **Testing financial management training.** Consequent IGC research investigated mechanisms through which managers of large firms can impact the economy through financial decision-making. Through a series of controlled randomised experiments in Mozambique, the project found that firms that took part in a course on finance improved their management of assets, monitoring of cash flow and use of debt. This improved the efficiency of financial operations and positively impacted the firm's performance. The researchers and Imperial College Business School have discussed extending the project through a partnership to sponsor an online finance training course targeted at developing countries.

5. Link to IGC's work in the public sector

Recent research has extended the study of management practices in the private sector to focus on public sector management. Drawing on findings from research into private sector management, a number of studies from across IGC countries have evaluated the use of management and incentives for public sector workers to improve performance and hiring.

- Managing bureaucracy to improve public service delivery **(Daniel Rogger, Orazio Attanasio, Imran Rasul, 2013).** An IGC study examined how the management practices of public sector bureaucrats in the Nigerian Civil Service affect the quantity and quality of public services delivered. The research, published in the American Economic Review, found that management practices that allow a degree of worker autonomy significantly increase project completion rates and project quality.

- **Motivating bureaucrats: Autonomy vs. performance pay for public procurement in Pakistan (Oriana Bandiera, Andrea Prat, Adnan Khan, 2017).** In Pakistan, an IGC project measured the impact of two major reform packages targeted at improving the efficiency of public procurement. Initial results suggest that providing autonomy is more effective than performance incentives at reducing prices paid by procurement officers.

6. Way forward

Contemporary studies have sought to understand the impact of management practices in an increasing range of sectors in developed countries, including education and health. Expanding research beyond firms in developing countries will broaden the understanding of the influence of management on improving outcomes. Further research has also continued to develop our know-how of the drivers of differences in management between firms. For instance, Bloom et al (2019) are looking at the impact of the business environment for boosting management practices, as well as the effects of spillovers from the arrival of large "Million Dollar Plants". The impact of education and competition are identified as important further areas for research here, including for investigating sources of within firm variations in management. Explaining the reasons for this variation continues to be a key source of interest for economists of which there is plenty of room for new innovative research.

The International Growth Centre (IGC) aims to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research. The IGC directs a global network of world-leading researchers and in-country teams in Africa and South Asia and works closely with partner governments to generate high quality research and policy advice on key growth challenges. Based at LSE and in partnership with the University of Oxford, the IGC is majority funded by the UK Department for International Development (DFID).