Improving the quality of management in UK firms could lead to significant gains in national productivity. **Rebecca Homkes** outlines the latest findings of CEP's research programme on the impact of management practices on the economic performance of firms and countries – and their implications for policies to restore growth.

Enhancing management quality: the potential for productivity growth after the recession

In the wake of the global crisis, governments are attempting to rebalance their economies, enhance competitiveness and position their countries along sustainable growth paths. Globally we are witnessing ever-heightened attention to both the potential sources of growth and what governments can do to stimulate them.

While growth is often spoken of in terms of GDP, from an economic standpoint the main focus should be more on productivity growth. It is productivity, the measure of output per input, which drives the growth of real wages and consumption.

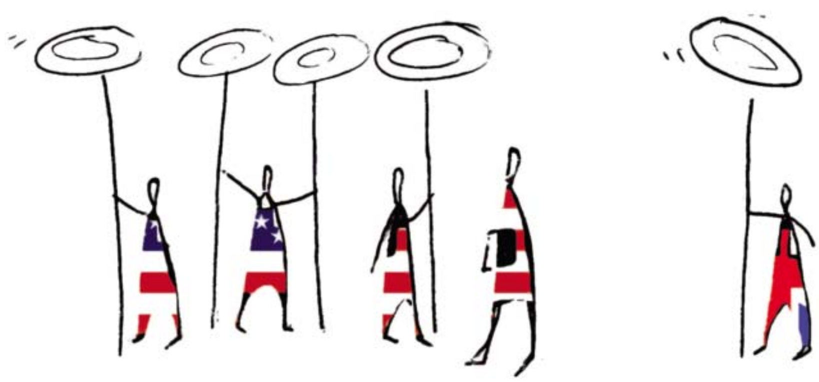
Productivity levels vary dramatically across countries, with the UK falling distinctly mid-table. Comparing GDP per hour in 2009, the UK is 12% less productive than the United States but also lags behind France and Germany. These productivity gaps are persistent over time, not only across countries but also between firms even within narrowly defined industries (see, for example, Foster et al, 2008).

What factors are driving these differences? One possible explanation is that the disparities are due to 'hard' technological innovations, such as research and development, information technology and patents. While these factors certainly play a role, even when controlling for them, productivity gaps still persist.

Another approach to explaining productivity differences, long espoused by business school academics and consultants but less supported by economists, has focused on the role of management practices. Confirming this explanation is a challenge, in part because of the difficulty of measuring management.

Over the past decade, CEP has undertaken a research programme to fill this void by systematically measuring management practices. Surveying almost 10,000 medium-sized manufacturing firms across 20 countries (as well as organisations in the retail, healthcare and education sectors), we have shown that better management practices are associated with higher productivity and other indicators of organisational performance, such as profitability, return on capital employed, sales growth and firm survival rates (see, for example,

Better management practices are associated with higher productivity and other indicators of organisational performance



Bloom and Van Reenen, 2010). In fact, we estimate that management practices can account for up to a third of the differences in productivity between firms and countries.

While the significance of management practices seems clear given the strong correlations between management and performance, we cannot as yet say for sure that the relationship is causal. One way to overcome this is to run randomised trials, where both improvements in management and changes in performance can be tracked over time. The next article in this *CentrePiece* describes how we are undertaking this in the context of large manufacturing firms in India.

We have also recently expanded the research programme to focus on the role of innovations in managerial practice. In 2009, we re-surveyed approximately 1,500 firms (including 256 UK firms) across 13 countries that we had interviewed in 2006, which has allowed us to build a longitudinal panel. Given the challenges of the current climate, we also asked managers a new set of questions – first, about the constraints that they perceive are impeding improvements in their management practices; and second, how their firms responded to the recession.

Management across firms and countries

Our work shows that significant differences in management performance persist across countries (see Figure 1). While the United States outperforms all other countries, developing countries such as China and India lag behind. Noticeably mid-table, the UK falls well below the United States and Germany in terms of management performance, though it scores similarly to the rest of Northern Europe and Australia.

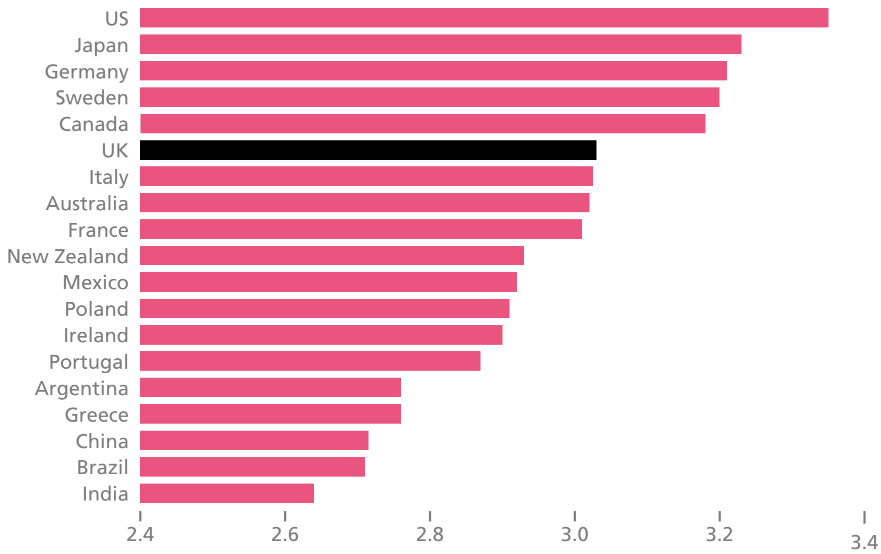
Cross-country differences account for less than 10% of the diverging management scores: the biggest management differences occur across firms within the same country. The distribution of scores highlights the fact that much of what drags certain countries down is a persistent 'tail' of underperforming firms, those that score less than a two on our five point scale. While this tail is largely absent in the United States, it is evident in the UK and especially pronounced in developing countries such as Brazil and India.

Changes in management practices

A central finding of our research is that management quality is fairly stable: firms that were well managed in 2006 tend to exhibit high quality management practices in 2009. We also find that firms that were poorly managed in 2006 were more likely to have closed, confirming that management is significantly associated with one key performance measure – firms' survival rates.

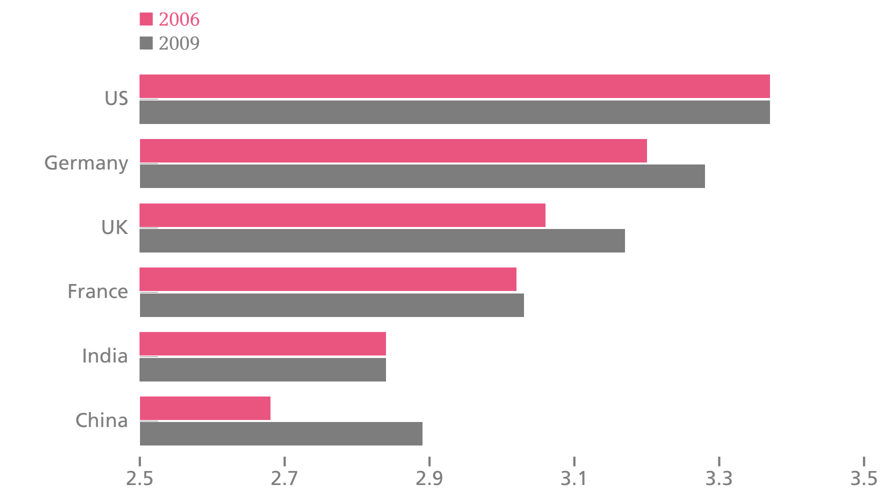
Better managed firms are significantly more likely to engage in cost-cutting during a recession

Figure 1:
UK management is mid-table by international standards



Notes: Each bar represents the average management score (over 18 questions) across all firms in each country. The results are based on 8,261 management interviews between 2006 and 2010.

Figure 2:
While relatively stable, across countries there is improvement in management scores from 2006 to 2009



Notes: Data from a total of 1,718 firms interviewed in 2006 and 2009/10 (263 US, 118 German, 253 UK, 157 French, 197 Chinese, 107 Indian firms).

On average firms have improved their management scores over time, suggesting that there is some learning behaviour and diffusion of best practices across firms (see Figure 2). A degree of cross-country convergence in management over time is also occurring with developing countries, notably China, making the most substantial gains. There have also been notable improvements in the UK, allowing it to catch up to some degree with the top-performing United States.

The biggest changes have come in operations management or the implementation of lean technology and practices. We also find that firms are more likely to improve their management scores when there is a new plant manager on site, suggesting that managerial turnover may be another potential driver of management improvements.

Two other factors seem to matter in determining management improvements: increased product market competition and skill levels. More competitive environments are associated with better management practices, and this positive relationship holds up against other measures, such as industry price-cost margins or indicators of trade openness (Bloom et al, 2007). Across countries, another significant finding is that firms that employ a greater number of managers with university degrees are much better managed than those with less educated managers.

Better managed firms are not only more productive and profitable, but they are also more pro-active during times of adversity

Figure 3:
Constraints on improving management internationally

Notes: Data from 265 UK, 266 US, 123 German, 211 Indian and 221 Chinese companies interviewed in 2009/10.

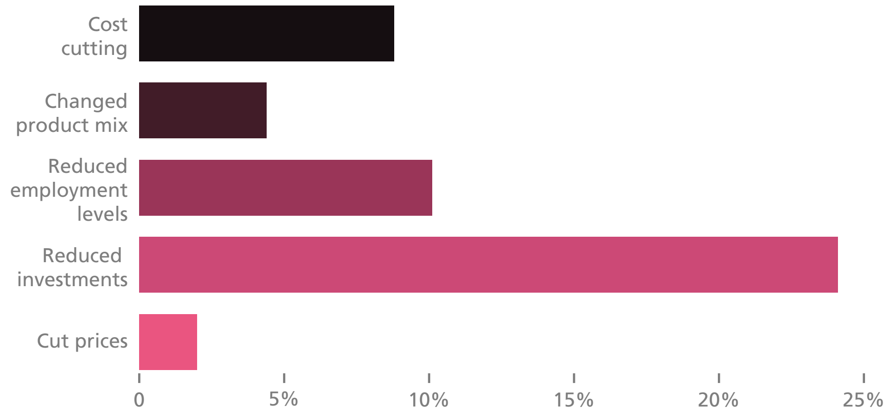
Constraints on management improvements

Across countries, an inadequate supply of managerial human capital ('hiring managers with the right skills') is the most cited constraint on improving management, while the second most cited constraint is insufficient worker skills (see Figure 3). UK managers face similar constraints to their US, French and German counterparts, which suggests that while a scarcity of managerial talent may be a major constraint, it is no more severe than that facing their major competitors. For developing countries this is much more of an impediment, especially in India where 56% of managers cite scarcity of talent as a major constraint compared with only 25% of US managers.

Another major contrast between developing and developed economies is in the third most commonly cited constraint: informational barriers or not knowing what changes to make. Over 20% of Indian firms and a quarter of Chinese firms cite this as a major constraint compared with around 10% in the UK and the United States. Despite frequent media attention, very few UK or US firms consider employment laws and regulations to be a major obstacle, yet they appear to be constraining 15% of French firms and around a quarter of German and Indian firms.

Figure 4:

UK firms' reactions to the credit crunch



Notes: Data from 265 companies interviewed in 2009/10. Each bar shows the average percentage change across all firms.

The impact of the recession

We asked managers the degree to which various aspects of their operations – such as costs, product mix and jobs – were affected by the recent economic downturn (see Figure 4). Overall, fewer changes were seen in China and India than in the developed countries, which is not unexpected given the recession's lesser effect on growth in developing countries. In the developed countries, investment was the most severely affected variable, but the UK actually made fewer cuts here than the others.

In all countries, prices were relatively unaffected by the recession – changes in firms' product mix were more common. With employment, UK firms came second only to the United States in terms of jobs cuts: these fell less heavily in France and Germany (which is consistent with the known higher firing costs in continental European countries). UK and French firms were less aggressive in seeking to cut costs than German and US firms (with the latter being particularly severe).

A strong finding also emerges that better managed firms were significantly more likely to engage in cost-cutting during the recession. This relationship between management quality and active changes also holds across other dimensions of firms' operations. This suggests that better managed firms are not only more productive and profitable, but they may also be more pro-active during times of adversity.

Implications for policy and practice

Our research shows that large and persistent gaps in management quality remain across countries, mainly driven by the tail of underperforming firms. The UK clearly has a deficit in management quality, and this deficit is likely to be a key factor explaining the persistent productivity gap with other countries such as the United States and Germany.

This lagging position would be substantially improved by boosting the management quality of the lower performing tail of UK firms. As a large proportion of these firms are family-owned, attempts to spread key lessons to these firms and encourage them to recruit professional managers or expertise should be examined. One policy response is to remove the zero inheritance tax rating on business assets passed within families.

Product market competition is one of the most significant ways to boost management quality. While the UK has relatively strong competition policy, there

The UK's deficit in management quality helps to explain the persistent productivity gap with the United States, France and Germany

are a few areas to consider. Besides continuing to ensure reduced regulatory barriers to setting up and expanding businesses, greater effort should be made to advancing further trade liberalisation and strengthening the European Union's services directive, which aims to boost competition by making it easier for service businesses to set up or sell their services anywhere in Europe.

While the importance of skills resonates throughout our research, this is an area where the UK has a relatively poor record: in the UK manufacturing firms we surveyed, fewer managers had degrees than in comparable countries. One way to improve management is to increase the supply of human capital, for example, by allowing university expansion or by increasing the availability of travel/work visas for experienced managers. Unfortunately, current education and immigration policies seem to be moving in the opposite direction.

Small firms seem to have particular difficulties in gaining access to skills, which highlights a role for management education and other facilities to increase the supply of capable managers. Smaller firms also face the greatest constraints on access to information. While propping up firms on 'artificial life support' is not the answer, this does imply that targeting existing policies to smaller firms (for example, business advice and skills support) could generate substantial benefits.

An overriding finding from managers' responses to the recession is that it is difficult to predict the actions firms will take, which cautions against policy responses targeted at particular firms or industries. But better managed firms are more pro-active, which suggests that enhanced managerial capability also produces more resilient firms, making them more likely to survive periods of adversity. Thus, better quality management could decrease the output volatility of UK firms over the business cycle.

Overall, our work suggests that focusing on management quality is a key way to enhance productivity, and we highlight a few policies that could foster these needed management improvements. Given the still fragile nature of the current business and economic climate – and strained public coffers – there is an acute need to get policy right.

Measuring management

To measure management practices, CEP researchers interviewed plant managers in medium-sized (approximately 250 employees) manufacturing firms. Plant managers were selected because they are senior enough to have a well-founded perspective on what happens in a company, but not so senior that they might have lost touch with the shop floor.

We used an interview-based survey evaluation tool that defines from worst practice ('1') to best practice ('5') across 18 dimensions of management practices. These practices fall into four broad areas: operations, monitoring, targets and people management. Each of these dimensions is scored on a one to five basis, and the average of the 18 separate scores made up the overall management score.

To ensure accurate and unbiased responses, we used a double-blind technique: interviewed managers were unaware of the scoring methodology and interviewers have no information in advance about the firm's performance or other differentiating characteristics.

Across countries, we obtained an approximately 45% response rate. There did not appear to be any bias in responses received: responses were uncorrelated with performance measures; and the non-responder firms had roughly similar management scores to the responder firms in the original 2006 survey.

Product market competition is one of the most significant ways to boost management quality

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More details on the programme, including past reports and full methodology, are available here: http://cep.lse.ac.uk/_new/research/productivity/management.asp

A free online tool, which firms and managers can use to benchmark their own management performance, is available here: http://worldmanagementsurvey.org

Further reading

Nicholas Bloom, Stephen Dorgan, John Dowdy, Christos Genakos, Raffaella Sadun and John Van Reenen (2007) 'Management Practices and Productivity', CEP/McKinsey & Company (http://cep.lse.ac.uk /management/Management_Practice_and_Productivity.pdf)

Nicholas Bloom and John Van Reenen (2010) 'Why do Management Practices Differ across Firms and Countries?', *Journal of Economic Perspectives* 24(1): 203-24

Lucia Foster, John Haltiwanger and Chad Syverson (2008) 'Reallocation, Firm Turnover, and Efficiency: Selection on Productivity or Profitability?', *American Economic Review*, 98(1): 394-425