Catching up to the frontier through the Human Side of Productivity: the role of skills and diversity

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Since the early 2000s productivity growth has been low in OECD countries. This overall weak performance hides large differences in performance between firms. In short, firms appear to differ in their ability to make use of the opportunities offered by ongoing structural changes related to digitalisation and globalisation; while some firms thrive, others struggle to keep up or even fall behind. For policy makers, it is therefore crucial to promote the adoption of best-practices at less productive firms to support their catch up to top performing firms, i.e. the productivity frontier.

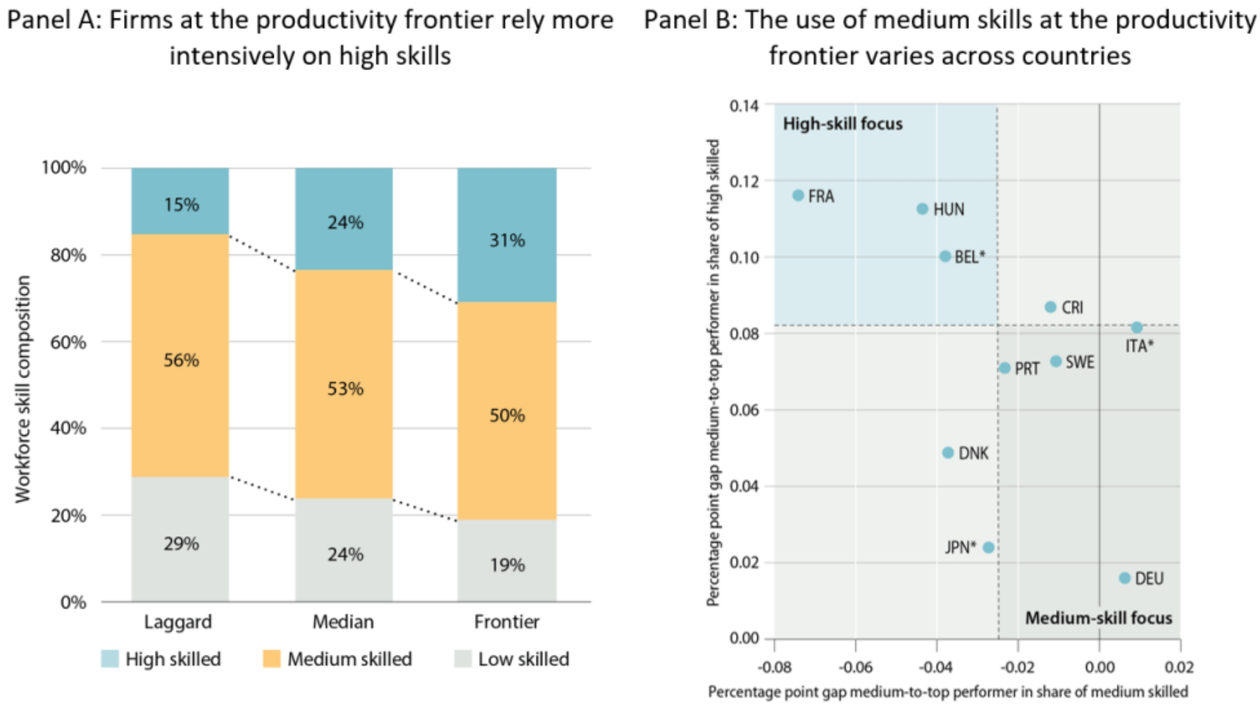
For this, it is important to know what is different about the best performing firms. At its recent 2021 Annual Conference (oe.cd/gfp2021), the OECD Global Forum on Productivity published the *Key Highlights* of its work on the "Human Side of Productivity" to examine how the workforce composition contributes to performance (oe.cd/hsop). Drawing on a network of researchers and partners from national institutions, it analysed administrative linked employer-employee datasets covering detailed information on millions of firms and their employees across 10 countries, to examine how the characteristics of the people in the firm relate to productivity differences.

The most productive firms employ more high skilled workers, but medium skill levels are crucial in some countries and

sectors

Differences in firm performance are closely related to differences in the use of skills. Top performing firms employ almost twice the share of high skilled employees compared to the least productive firms (Figure 1, panel A). However, country-specific patterns reveal that firms at the productivity frontier can pursue different skill strategies depending on national circumstances. For instance, while firms at the productivity frontier in France specialise in the intensive use of high skills, top productivity firms in Germany – with an established system for vocational training – also make intensive use of medium skills (Figure 1, panel B). From a sectoral perspective, it is mostly in the traditional, less knowledge intensive services – such as wholesale, retail, hotels, restaurants and transport – where medium skills are particularly widespread among the best performers.

Figure 1. The role of skills for productivity differences between firms



Source: Authors’ calculations based on cross-country micro-aggregated linked employer-employee data.

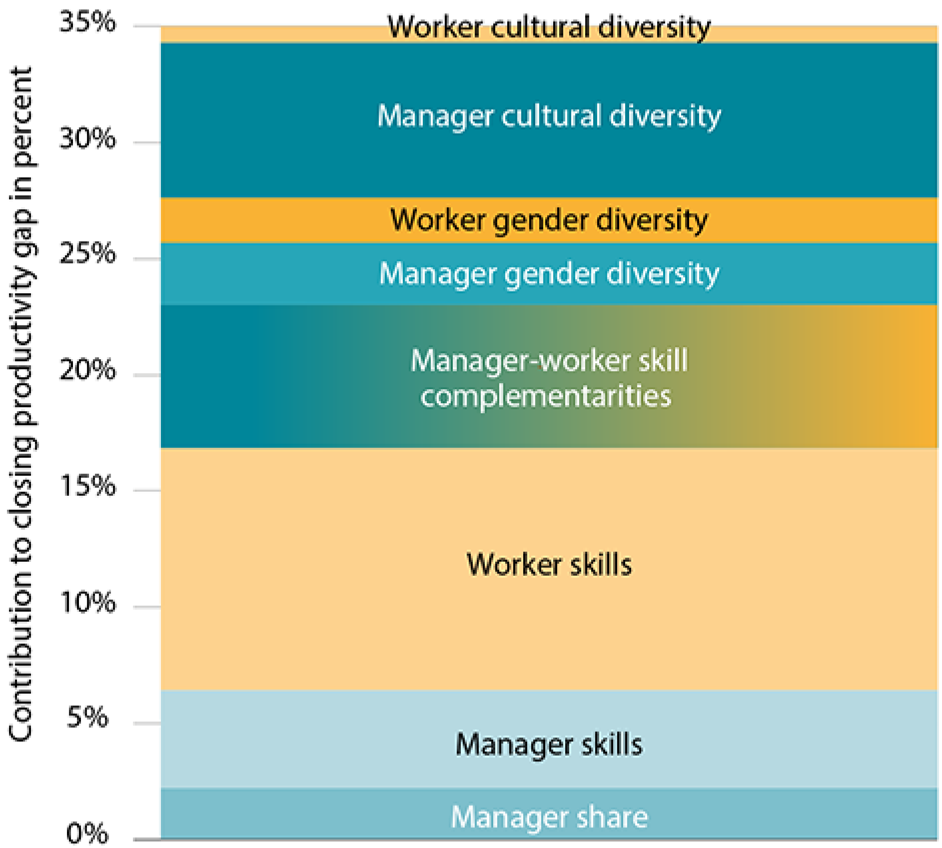
Moreover, despite the pervasive focus on high skills at the productivity frontier in all countries, employees at top performing firms also rely to an important extent on the full range of skills, including *medium* and *low skills*. Beyond general skills, we also highlight the systematic link of firm productivity with the use of specific skills, such as management and communication (soft skills) and ICT skills (hard skills).

Distinguishing managers and workers shows that manager skills can have a disproportionate impact on firm performance, due to their key position within the firm's organisation. But high skilled managers and a highly skilled workforce are highly complementary; we find that high skilled managers are most effective with a highly skilled workforce. Reaping the full productivity gains associated with adjusting the firm's skill structure – also taking into account manager-worker complementarities – corresponds to closing the productivity gap between the typical median performer firm and the frontier by 20%.

Adjusting the skill and managerial structure and raising diversity could reduce productivity gaps by one third

We also examined the role of firm organisation and cultural and gender diversity. Devoting more resources to formal management is linked to higher productivity, although the link is weaker in countries with traditionally flatter hierarchies (Denmark and Sweden). Our results also show that more gender and culturally diverse firms are more productive. Diversity especially benefits managers, who can gain the most from the more comprehensive perspective diversity offers for decision making and identifying business opportunities; drawing on a broader pool of diverse candidates for better job matching may also be especially important for managers. Most firms exhibit low levels of diversity, hence important productivity gains could be made from becoming more diverse, closing productivity gaps by about 10%.

Figure 2. Adjusting the Human Side can close productivity gaps by about one third



Source: Authors' calculations based on cross-country micro-aggregated linked employer-employee data.

Adding up all these productivity gains, adjusting the workforce composition could close productivity gaps by about one third (Figure 2). These large gains show that people and the way they interact within the firm matter a lot for productivity. These gains are estimated to be larger than those coming from adjusting physical capital to that of the best performing firms (20%).

The Key Highlights also provide a map of public policy areas that could help firms adjusting the workforce. Promoting catch-up through the *Human Side* should build on a broad policy approach, also taking into account that such adjustments should be accompanied by further, complementary changes, e.g. to the firm's organisation or investing in new technologies. Importantly, about half of the productivity gap is not yet accounted for in our analysis. Complementarities between people and tangible and intangible assets could go a long way to close this gap even further. Examining these complementarities will be the aim of the second stage of the project.