Supervisors nurture talent in organisations

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- This policy brief considers the impact of frontline supervision on the speed and quality of output produced by workers who conduct household interviews for a research organisation in Uganda.
- Supervision targeted workers' predicted weaknesses and led to persistent improvements in productivity. These improvements also spilled over to metrics of performance that were not directly supervised by the organisation.
- In conclusion, findings show that organisations should design career paths that nurture supervisors' coaching skills. In addition, early coaching interventions for new employees may yield substantial performance gains.

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Introduction

Organisations grow when they motivate, nurture, and allocate their workers productively. Academics and practitioners alike acknowledge the importance of frontline supervisors to "get middle management right," thereby connecting an organisation's goals with its workforce (Mookherjee, 2013; Field et al., 2023a, 2023b). However, supervisors are an expensive and scarce resource to deploy at work – they typically perform several different functions in a limited span of time. This motivates two interrelated questions: how do supervisors impact worker performance and by how much? These questions matter, as investments in supervision are resource-intensive in both public and private sector organisations (Lazear et al., 2015; Rasul and Rogger, 2021).[1] Moreover, they hold different implications for how organisations should go about selecting, deploying, and planning career paths for supervisors to maximise their productive potential.

What do supervisors do?

While supervisors do many different things, economists have traditionally viewed supervisors as monitors: they gather information on how workers perform and administer rewards or sanctions. However, the increasing availability of personnel records has aided the collection of systematic evidence on what supervisors do in practice to improve the performance of workers whom they oversee. Research has shown that supervisors go beyond their role as monitors and play a central role identifying, allocating, and retaining talented workers in organisations (Frederiksen et al., 2020; Hoffman and Tadelis, 2021; Friebel et al., 2022; Minni, 2023; Haegele, 2024). These findings suggest that supervisors possess key information about their subordinates, allowing them to identify their respective strengths and weaknesses on the job. Building upon these insights, in a recent IGC-funded research study (Sen, 2024), we examine the extent to which supervisors nurture talent by imparting tacit production knowledge that enables workers to perform better. This means that supervisors diagnose workers' performance weaknesses and provide feedback ("targeted coaching").

Overview of the research study

We designed and ran a field experiment to detect and quantify the role of supervisors as coaches. To do so, we partnered with a leading research organisation in Uganda to study the impact of frontline supervision on the speed

[1] Supervisors make up just under 10% of employment in a variety of important sectors in the US, where data is more readily available. This includes 8% of employment in production, 10% in sales, and 9% in food preparation and service occupations (BLS, 2022).

and quality of output produced by its workers, whose job it is to conduct household interviews. Through the experiment, we uncovered three key features related to the effects of supervision on worker performance:

1. **Persistent effects:** Supervision led to persistent improvements in worker performance. This implies that supervising a worker today enables them to perform better tomorrow, even if they are not directly supervised the next day.
2. **Spillovers:** Improvements in worker performance spilled over to production tasks and metrics of performance that were not directly supervised by the organisation.
3. **Targeted effects:** Supervision targeted workers' initially predicted performance weaknesses. For example, workers who were initially predicted to be slow-paced increased the speed at which they conducted household interviews. Conversely, workers who were initially predicted to be fast but relatively less attentive consistently recorded higher quality data.

These findings are consistent with empirical predictions from a multitasking model (Holmström and Milgrom, 1991) which we augmented to include a time-constrained supervisor who can make targeted investments in a worker's skills. A worker chooses how much effort to put into production speed and output quality, where their marginal costs of effort depend on their skills – how fast they are and how attentive they are. The supervisor observes the worker's skills and decides how to coach them, investing a fixed amount of time into improving one or both skills. The model clarifies that the supervisor's optimal strategy in our production setting (where larger quantities of high-quality output are valued) tailors coaching to a worker's performance weaknesses, rather than their strengths. Fast workers, who prioritise speed over quality, tend to slow down and improve on quality; by contrast, slow-paced workers, who prioritise quality over speed, tend to speed up.

Is supervision cost-effective?

Our findings support the notion that supervisors add value by transmitting production knowledge, which leads to persistent changes in worker performance.[2] We conducted a simple back-of-the-envelope calculation to estimate just how much value supervisors contribute to the organisation as a whole. We estimate that for every hour that supervisors invest in coaching workers (during the first week of the household survey) the organisation obtains an increase in value worth 2.3 worker-hours. Supervisors are paid 15% more than workers in our setting, implying that the benefit-to-cost ratio of a

[2] In the paper, we use additional components of the experimental design to distinguish between alternate mechanisms such as the effect on workers' incentives.

supervisor-hour is two. This means that for every unit of cost spent on a supervisor-hour, there is a benefit worth two units. The gains could be even larger if supervisor time was allocated optimally across workers. In a nutshell, investments in supervisors (as coaches) are very cost-effective for our partner organisation.

Conclusion

The view that supervisors are conduits for the transmission of production knowledge in organisations has clear implications for personnel policies. Considering the important role that supervisors play in coaching, we conclude with some suggestions for how organisations should select and nurture supervisors.

1. **Selection and training:** Effective supervisors require a deep understanding of the industry, the specific firm, and the tasks they oversee. Tacit knowledge is a cornerstone for delivering tailored coaching on the job.
2. **Career incentives:** Organisations should design career paths that nurture supervisors’ coaching skills. It may be a mistake to reward supervisors who nurture talent with promotions to strategy roles in senior management that do not harness these skills (yet this is something that organisations do routinely).
3. **Early coaching:** Our results also suggest that early coaching interventions for new employees may yield substantial performance gains.

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