Is the Covid-19 Pandemic Fast-Tracking Automation in Developing Countries? Evidence from Colombia

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Publication Date: Tuesday, 4 of October 2022 Abstract
This paper assesses whether the Covid-19 pandemic accelerated automation in developing countries. We studied the case of Colombia, a country with low R&D and productivity and with high labor informality and unemployment. We estimated event-study models to assess the differential effect of the pandemic on job openings and salaried employment by the potential degree of automation of each occupation. Our results suggest that both vacancies and salaried employment fell more in highly automatable occupations during the pandemic and have since experienced a slower recovery. The effect of the pandemic on automation is mostly driven by sectors that were affected by mobility restrictions. We also found heterogeneous effects by age and gender. The acceleration of automation is mainly affecting the labor market for females and individuals over the age of 40. Finally, we explored the differential effect on occupations with wages around the minimum wage. We found that occupations with wages close to the minimum wage exhibit the highest effect, especially at the onset of the pandemic.

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