

Customer Discrimination in the Workplace: Evidence from Online Sales

Based on BFI Working Paper 2023-25, "[Customer Discrimination in the Workplace: Evidence from Online Sales](#)," by Erin Kelley, World Bank; Gregory Lane, UChicago's Harris School of Public Policy; Matthew Pecenco, Brown University; and Edward Rubin, University of Oregon

The assignment of a female-sounding name to tele-agents leads to 50 percent fewer purchases; customers also lag in responding, are less expressive, and avoid discussing purchases.

Customer bias can take a toll on workers who are evaluated on customer service. Over time, worker performance may suffer, impacting their productivity and ultimately their pay and advancement opportunities. For firms, customer bias can be a factor in hiring and promotion decisions, while for regulators it can influence their understanding of the effects of certain policies, like performance-based pay. Despite these and other known consequences of customer bias, little is known about the magnitude of these effects.

To address this gap and the challenges of measuring the impact of customer bias (including subjective data, multiple factors like skill levels and workplace environment, and testing across equally productive individuals), the authors run the first randomized field experiment on customer discrimination for workers within a firm. They partner with an online travel agency with offices across Sub-Saharan Africa that sells flights and hotels, and that hires local sales agents to assist customers. The authors study over 2,000 customers from 70 countries (87% from Africa, 13% abroad) as they chat with online sales agents who answer their questions and help them make purchases. This allows the researchers to

precisely measure worker productivity through sales records and document rich patterns of customer engagement, including bargaining and harassment, through chat transcripts.

Please see the working paper for more details on methodology, but broadly speaking the authors apply a novel framework for estimating the causal effect of customer-based discrimination, which includes randomization of the worker names and implied genders that customers see, while blocking this information from the workers themselves. Consequently, any change in consumer behavior toward sales agents could only occur if consumers respond to the randomly assigned names. This work improves upon the limitations of existing research that includes actors and fictitious scenarios to uncover bias, to find the following striking results:

- Randomly assigned female names reduce the likelihood that customers make any purchase, the number of purchases customers will make, and the value of those purchases.
- Specifically, the likelihood of any purchase decreases by 3.8 percentage points, or 50% relative to the baseline purchase rate (7.6%).

- There are similarly large reductions in the total number of purchases, the total value of purchases and the average purchased price conditional on any purchase.
- Customer disinterest is apparently driving these effects; customers lag in responding to female agents and are less likely to transition from their initial inquiry into a discussion about purchasing.
- Finally, the authors do not find evidence that customer disinterest extends to harassment or differential bargaining.

Identifying the existence and extent of customer discrimination in a real-world setting is important for two reasons. First, this work shows that customer-based discrimination will not be competed away in equilibrium because firms internalize their preferences. And second, hypotheses that workers may sort away from industries in which they face customer discrimination, thereby limiting its impact, do not appear to hold in this setting. More broadly, if women are unable to avoid customer discrimination through sorting, this may present a barrier to female labor force participation, and introducing a persistent labor market distortion.

Bottom line: Customer discrimination and its effects are real, and their effects often go unnoticed by firms and econometricians alike. Also, the authors discuss that the findings described in this work likely extend to other service industries and to other locations around the world. For policymakers, the authors offer two approaches. The most direct is to change customer norms around women in the workplace by, for example, using programs to increase the representation of women in positions of power, or convincing firms that they could capture future benefits by sensitizing customers to female workers. Another approach could attempt to limit the consequences of customer-based discrimination on female employees by eliminating agent names or using gender-neutral names.

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NO. 2023-25 · FEBRUARY 2023

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