

BARRIERS AND SOLUTIONS FOR SMALL AND MEDIUM SIZED MANUFACTURERS' COLLABORATIVE ROBOT ADOPTION

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Problem

- Slow diffusion of co-robot technology
- Innovation challenges for small and medium-size manufacturers (SMMs)
- Lacking systematic understanding of barriers to co-robot adoption

Scientific Impact

- Systematic analysis of barriers to co-robot adoption
- Understanding development needs for co-robots
- Advancement of labor market analysis methods with novel datasets (Real Time Labor Market Information)

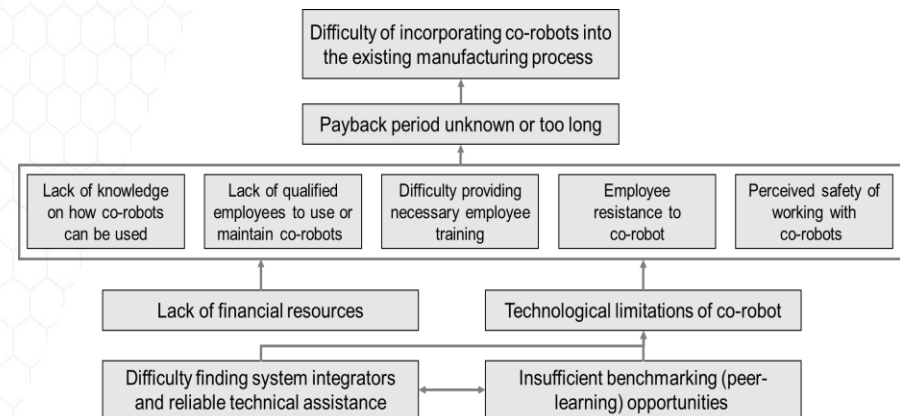
Response

- Identifying the barrier structure through Delphi survey technique & Interpretive Structural Modeling
- Firm and labor market analysis using real time labor market information
- International case studies to assess enabling environments

Broader Impact

- Potential solution to problems & support for SMMs
 - Increase productivity & competitiveness
 - Upskill jobs & increase wages
 - Attract workers & counter growing inequality
- Understanding supportive environments for technological innovation in SMMs
- Insight for regional & industrial development policy
- Recent Publication

[Leigh, N. G., Lee, H., & Kraft, B. \(2022\). Disparities in robot adoption among US manufacturers: a critical economic development challenge. *Industry and Innovation*, 1-20.](#)



Preliminary analysis results on the barrier structure to co-robot adoption in SMMs