EU–ILO project on the effects of automation and their gender dimensions: The apparel sector

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- 1800s (Singer Sewing Machine, 1851)

1990s, Honduras

- 2000s, Bangladesh

Some Reflections

- For apparel, analyze automation in the context of related processes: Digitization, big data and analytics; algorithmic decision making/AI; blockchains. Inter-related processes that affect the entire supply chain dynamics; work; gender.
- Examine the large drivers of these trends (including hyper-competition, buyer consolidation, Covid-19, speed to market) to better understand future trends.
- See how automation, digitization, etc. impact not only assembly production that uses new technology but also traditional apparel production via work intensity, etc. [increased pressure on garment workers; gender-based violence at work].
- Consider including informal/homeworkers (overwhelmingly female). Appear to be losing to automation with technology that does embroidery, for example.
- Other countries to consider? India: #4 garment exporter. Gender dynamics; homeworkers. S. Korea: very advanced, biggest suppliers. (Korea in Indonesia?)

Contextualizing the drivers of automation

- Main driver is speed to market → in order to have more accurate forecasting → in order not to have unsold inventory (which implies 40-60% discounting) or unrealized sales (leaving profits on the table).
- The faster you can get a product to market, the better you will be able to forecast. With Covid, forecasting is even more crucial. No one can plan 6 months out. This is motivation for so many changes that are being pushed forward now, such as 3-D protypes.
- It is all about cutting time; this saves money by not miscalculating on inventory.
- Other drivers: environmental sustainability; human rights due diligence, etc. Technology to know supply chains...

Automation, Digitization, AI in GVCs: Impact on labor control and job quality: Include impact on **work intensity** for garment workers?

- Moving from daily to hourly worker production targets. Very closely monitored.
- Going from 60, to 80, to 100 operations per hour.
- Verbal abuse (Gender-based violence): 64% of workers say they are yelled at for not meeting production targets [India.]
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Reflections on Sheba; defeminization

- Cutters: Historically, male dominated. Growing automation. [Honduras]
- Embroidery: female dominated; homeworkers. Growing automation. [India]
- Helpers: female dominated. 1/3 of workers. Pushed out [Bangladesh]
- Missing variables? Work intensity? Youth? When labor markets tighten for young women, bring in young men; not older women. [Honduras]

- Interviews with workers and employers in selected lead and supplier firms. Yes.
- Also, interviews with government representatives in producing countries. Thoughts on job displacement? Industrial policy? Re-training?
- Which and how many lead and supplier firms, and how to select?
    - Variation in terms of size, degree of automation, types of automation (cutting, sorting, etc.)
- As the industry lags in terms of technology innovation and diffusion, “extreme case” purposive sampling of most advanced firms, to get a sense of best practice?
    - Good. But also get cases of ‘automation around the edges.’ What’s changing for assembly workers as automation advances throughout other segments of garment GVC?
- Industry associations? Great source of information on trends.
- Technology producing firms? Good idea. Expectations.
- How to best address sensitivities regarding current and prospective investment strategies as well as linking automation with potential job loss? Great. Need to ask this question.
- Might it be possible to address what happens to workers who have experienced job loss resulting from automation, such a through interviews with workers organizations, employment agencies or other key informants? I agree this would be a good approach.

Thank you.