



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

Sheba Tejani, University of Birmingham

David Kucera, ILO

15 April 2021



Framing the research

- ▶ Significant variation in trends of feminization and defeminization (female share of total emp.) in apparel. Can follow a different trend from total employment in the sector. No clearcut relationship to state of the industry...
 - *Defeminization can occur in context of expansion or contraction of the industry*
 - *Rising or falling total mfg. employment, and total female mfg. employment*
 - E.g., South Korea & Taiwan, defeminization took place in context of compositional shift away from apparel; but even with a compositional shift towards apparel in Malaysia & Turkey men were being employed at a faster rate than women (Kucera & Tejani 2014)
 - In Indonesia women are being employed at a faster rate than men in an expanding apparel sector (with defeminization in mfg. in aggregate). In Mexico, compositional shifts away from apparel, along with defeminization within the sector (Tejani and Kucera 2021, forthcoming)
- ▶ What accounts for these differences? Contextual factors...automation?
- ▶ How do we interpret them? Not just 'economic' reasons driving the trends...

▶ Defeminization and technological upgrading

- ▶ We suggested defeminization in South Korea, Taiwan and Malaysia was linked to the technological upgrading experienced in the 1980s and 1990s (Kucera & Tejani 2014)
- ▶ Systematic negative relationship of female share of mfg. emp. with labour productivity for 12 countries, 1990-2014 (Tejani and Kucera, forthcoming 2021)
- ▶ **Indonesia** is one of the few countries that has a positive relationship with labour productivity
- ▶ **Apparel and Motor Vehicles (MV)** - female share of mfg. emp. has long-run negative relationship to labour productivity.
- ▶ In 11 of 14 countries, including **Indonesia and Mexico**, although more women are being integrated into MV, large compositional shifts of employment towards MV means that women's share in MV is declining
- ▶ Why are women not preferred for technically advanced jobs?
- ▶ Why are they retained in some cases on the other hand?
- ▶ What explains the difference?

Explaining gender impacts

- ▶ Either women are largely not hired (**motor vehicles**) OR women are not retained when upgrading occurs (**garments**)
- ▶ **Q1. Why are women not hired in some sectors? Hypotheses...**(Seguino and Braunstein 2018)
 - Gender stereotypes about men and women's abilities and qualifications; gender typing
 - Concerns about negative effects on productivity of hiring women in jobs dominated by men
 - Gender segregation as a divide and conquer strategy to weaken worker's bargaining power
- ▶ **Q2. Does defeminization occur? Why? Hypotheses...** (Kucera and Tejani 2014)
 - Gender typing of jobs as feminine and masculine
 - Breadwinner norms- women are secondary workers and men entitled to higher paying jobs
 - Job rationing, especially in times of crisis or deindustrialization
 - Lack of skills and/or on the job training
 - Lack of firm's willingness to invest in training due to higher turnover of women, maternity leave, marriage (?)
- ▶ **How are categorical distinctions are mapped onto a division of labour in practice?**
 - Not just gendered sectors but gendered processes and tasks

▶ Defining the scope of the industry and time frame

- ▶ Time frame: past, current and prospective developments?
- ▶ Which processes and products?
 - Already widely automated; Where automation is in progress; Where significant technological and economic impediments remain
 - Fully-automated versus semi-automated (analogous to “co-bots”)
 - Where there are large numbers of workers, both women and men
- ▶ Some processes already widely automated: spinning, weaving, knitting, cutting
- ▶ Propose focusing on apparel and footwear sewing and fabric handling as well as 3D printing, but need to focus on processes and products where something is happening
- ▶ A particular challenge in apparel and footwear, which lags in technology innovation and diffusion and will likely differ between EU and non-EU countries

▶ Desk research

- ▶ Up-to-date reviews of general automation developments in the industry are already available (e.g., Altenburg, et al. 2020).
- ▶ Need for country and firm reviews of the industry
 - Employment patterns, female and male, occupational structure
 - Trade patterns and GSC context
 - Reviews of key lead firms (brands and retailers) and supplier firms in the country, focusing on marketing, investment and location strategies (e.g., automation linked to near- or re-shoring of production) in addition to technological developments

▶ Conducting interviews for in-depth case studies

- ▶ Interviews with workers and employers in selected lead and supplier firms
- ▶ Which and how many lead and supplier firms, and how to select?
- ▶ 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?
- ▶ Industry associations?
- ▶ Technology producing firms?
- ▶ How to best address sensitivities regarding current and prospective investment strategies as well as linking automation with potential job loss?
- ▶ Might it be possible to address what happens to workers who have experienced job loss resulting from automation, such as through interviews with workers organizations, employment agencies or other key informants?