The effects of automation in the apparel and automotive sectors and their gender dimensions

May 2021

At a glance

Donor

European Commission

Countries covered

Germany, Indonesia, Mexico, Romania, Spain

Project timeline

January 2021-December 2022

Beneficiaries

Direct beneficiaries: policy-makers, workers' and employers' organizations, international and multilateral actors, academic and civil society organizations in the area of the future of work.

Ultimate beneficiaries: workers in the countries covered and beyond, particularly women and men in the apparel and automotive sectors.

Robot in automotive factory. (L. Kuhne, 2019)

"The effects of automation in the apparel and automotive sectors and their gender dimension" is one of four research activities under the International Labour Organization (ILO) and the Joint Research Centre of the European Commission (EC-JRC) project "Building partnerships on the future of work" funded by the EC Partnership Instrument and also involving the EC Directorate-General for Employment, Social Affairs and Inclusion in its steering. The project started on 1 January 2021 and has a duration of two years.

Project objectives

The future of work is upon us, shaped by the combined effects of globalization, technological, environmental, climate and demographic changes, which will be further accelerated and aggravated by challenges resulting from the COVID-19 pandemic. Prompt and decisive actions are essential to shaping the future of work we want.

Against this background the EU and the ILO have joined forces to develop knowledge on understudied issues related to the future of work in a project entitled "Building partnerships on the future of work". This project comprises four research activities, including "The effects of automation in the apparel and automotive sectors and their gender dimension".

A good deal of attention has been devoted to studying the impact of automation on employment. Many acknowledge that these outcomes are uneven, varying across regions of the world, economic sectors, as well as amongst groups of workers, including women and men. Yet there is little evidence on the processes behind these outcomes and, in particular, why they seem to further reinforce rather than alleviate gender inequalities.

The main goal of this research is to gain a better understanding of how processes of industrial automation and digitization interact with local social structures, cultural norms and institutional systems in the context of global supply chains (GSCs). The automotive and apparel industries have been chosen because despite being highly integrated in global and regional supply chains, they are at opposite ends of the spectrum in terms of automation and the gender composition of their workforce. The automotive sector has the largest stock of robots in manufacturing and is often touted as being at the forefront of automation. Conversely, production processes in apparel manufacturing remain much more traditional and labour-intensive, particularly reliant on manual labour for sewing activities. Moreover, employment in apparel manufacturing is highly feminized while women are much less prevalent in the automotive sector.

In particular, the project will shed light on the following issues:

- Product and production process innovations, including technologies used and changes introduced in recent years leading to increased automation;
- The organization of GSCs, including forms of work organization, recent and expected changes and how this is facilitated by digitization;
- The socio-demographic profiles of workers, working conditions, task profiles within jobs and their change as a result of automation;
- Assessments of the impact of recent technological changes on women's and men's employment and working conditions and potential impact in the near future;
- Analyses of firms' responses during and after the COVID-19 crisis along a number of dimensions (e.g. reshoring, process and product innovation, capital investment) and their impact on women's and men's employment and working conditions;
- Social dialogue and industrial relations, with a particular focus on its relation to recent and expected technical change and automation.

Main activities

The main activity encompasses case studies built upon structured interviews for employers and workers in the apparel and automotive sectors. Preparatory research will include literature reviews of the state of the art of automation and digitization and employment effects on the two sectors. Preliminary research will also include an analysis of input-output data and labour force survey data to assess the changing occupational structure.

Project outcomes

The overall outcomes of this research project include:

- More robust knowledge base on the employment impact of automation in the apparel and automotive sectors, particularly differences amongst women and men;
- Greater information exchange and knowledge sharing on future of work issues;
- Informed social dialogue and employment policies towards workable and sustainable solutions to some of the key challenges related to the future of work;
- Stronger alliances between international and multilateral actors, EU and non-EU countries and social partners in the area of the future of work.

Textile industry workers. (M. Crozet, 2007)

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