

# Digital transformation in India's labour ecosystem: organising the unorganised

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With a nearly 500 million strong labour force<sup>1</sup>, India faces an employment deficit unlike any other. The deficit is witnessed in the overall number of jobs, and in terms of skill alignment as well as sustenance and jobs for women. This is probably one of the most daunting challenges India's policymakers face, especially in the midst of managing the fallout from the COVID-19 pandemic. India's vision should encompass understanding the contours of its labour force and related issues, while skilling them to achieve their aspirations.

Analysing labour market data can help identify and understand issues in the labour market, take informed, objective decisions, and evaluate the costs versus benefits of policies, measures and programmes. Currently, India's Bureau of Labour Statistics<sup>2</sup> is responsible for the collection, compilation and publication of labour statistics and other information relating to labour, such as sector and state-wise employment and unemployment, wages and earnings by industry, industrial relations, working conditions, etc.

However, there remain several challenges that impact the quality and reliability of data. The manual process of data collection, coupled with a lack of digital interventions/tools, leads to outdated information and inhibits the visualisation of the big picture. Moreover, the fungible nature of India's labour dominated by the services sector presents another area of concern. Considering low-skill labour is gradually losing its importance as a factor of production with only about 18 per cent<sup>3</sup> of global goods trade driven by labour-cost arbitrage, India needs to transition to relatively higher-level skills in order to improve standard of living through increased earnings.

As the boundaries between the physical and digital worlds converge, digital transformation is playing a critical role in addressing such challenges. Going digital improves data collection and reduces errors, while providing real-time updates owing to the inbuilt relationship matrix in the AI/ ML/ IoT, as well as increased accessibility, efficiency and data accuracy (geolocation, time, username). Labour force data, if digitised and analysed using data analytics tools will help us derive important inferences such as education – employment dependency, skill trending in the current market in order to design skill development or vocational courses, safety regulations and incentives to avoid higher labour attrition rates, etc.

All this underscores the need for interventions to help secure the nation's economic competitiveness and close the skills gap, cultivating lifelong skills that lead to sustainable employment while helping employers fill middle-skills jobs. Some of the key interventions include –

**Data integration** - Since parallel departments capture different sets of data (e.g. child labour data, women employment etc. by Department of Women and Child Development; data on deaths, births etc. by Ministry of Health and Family Welfare; expenses related information by NSSO, etc.), an integrated

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platform to fetch data from all the relevant line ministries will be beneficial and help in effective decision making.

**Integrated MIS and dashboard** - Considering most data is moving online, a comprehensive MIS with various interfaces (separate for each subject like women employment, child labour, employment and unemployment status, CPI etc.) is an efficient way to track data collated from multiple sources. The creation of a dynamic dashboard, frequently displaying key information on the various parameters, will yield visual data representations for easier absorption while showcasing regularly updated data.

**Labour lifecycle management** - Digital disruption should begin with bringing all users/labour on a single platform while keeping them updated with information on relevant parameters, such as wages, pensions, job opportunities, Ministries' helpdesk, etc.

**Skills mapping** - To meet the needs of the present and future labour market, the development of necessary skills is required. The creation of a national level skill database can help in imparting more sustainable skills to the population leading to greater earnings and standards of living.

**Matchmaking** - With a national-level database of labour and skills, the platform can become a source of matchmaking, more than merely filling gaps across industries.

An enabling ecosystem for labour can be achieved, if these interventions are coupled with initiatives such as the revamping of the traditional vocational training system – polytechnic, ITIs and Tool Rooms, Academia - Industry linkage for research and development to catalyse innovation, the alignment of National Occupation Standards (NOS) with global standards, the launch of a National Apprenticeship Programme, etc.

Digitising the data collection process, deriving insights through analysis, forecasting trends, identifying skill gaps, delivering content and mapping skillsets with the right jobs can help address our work deficit. Given these shifts, the digital labour ecosystem is set to play a key role in India's transformation towards self-reliance.

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<sup>1</sup> [The Labor Force, Total – India, Derived using data from International Labour Organization, ILOSTAT database | The World Bank | June 2020](#)

<sup>2</sup> Annual Report 2019-2020 , Ministry of Labour and Employment, GoI | 2020

<sup>3</sup> Globalization in transition: The future of trade and value chains | McKinsey Global Institute | January 2020

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