# ABSTRAK

Transformasi digital menjadi pendorong penting perubahan pasar tenaga kerja di Indonesia, namun manfaatnya belum terdistribusi secara merata akibat kesenjangan infrastruktur dan kualitas akses digital antarwilayah. Penelitian ini bertujuan mengidentifikasi pengaruh kausal digitalisasi terhadap *labour market outcomes* pekerja di Indonesia yang diukur melalui total upah. Data yang digunakan merupakan data mikro SAKERNAS Februari 2024 yang dikombinasikan dengan PODES, BPS, serta data curah hujan BMKG. Digitalisasi diukur menggunakan digitalization index berbasis Principal Component Analysis (PCA). Untuk mengatasi potensi endogenitas, penelitian ini menerapkan pendekatan Instrumental Variables dengan metode Two-Stage Least Squares (IV–2SLS), menggunakan curah hujan dan kualitas resepsi sinyal sebagai instrumen. Hasil estimasi menunjukkan bahwa digitalisasi berpengaruh positif dan signifikan terhadap upah pekerja, dengan efek yang lebih besar dibandingkan estimasi OLS. Temuan ini menegaskan pentingnya pemerataan infrastruktur dan peningkatan keterampilan digital guna mendukung transformasi digital yang inklusif di Indonesia.

**Kata Kunci** : Digitalisasi, Upah, Labour Market Outcomes, Instrumental variables

***ABSTRACT***

*Digital transformation has become an important driver of labor market changes in Indonesia; however, its benefits have not been evenly distributed due to disparities in infrastructure and the quality of digital access across regions. This study aims to identify the causal effect of digitalization on workers' labor market outcomes in Indonesia, measured by total wages. The analysis uses micro-level data from the February 2024 National Labor Force Survey (SAKERNAS), combined with PODES, Statistics Indonesia (BPS), and rainfall data from the Indonesian Agency for Meteorology, Climatology, and Geophysics (BMKG). Digitalization is measured using a digitalization index constructed through Principal Component Analysis (PCA). To address potential endogeneity, this study applies an Instrumental Variables approach using the Two-Stage Least Squares (IV–2SLS) method, with rainfall variation and signal reception quality as instrumental variables. The estimation results show that digitalization has a positive and statistically significant effect on workers' wages, with a larger effect than that obtained from OLS estimation. These findings highlight the importance of expanding digital infrastructure and strengthening digital skills to support an inclusive digital transformation in Indonesia.*

***Keywords****: digitalization, wages, labor market outcomes, instrumental variables.*