Andriy Sadyuk
National Academy of Management. Ukraine.
https://orcid.org/0009-0000-3012-4256

MICRO-CREDENTIALS AS ECONOMIC SIGNALS IN THE LABOR MARKET: MACROECONOMIC ROLE OF INFORMATION ASYMMETRY, HUMAN CAPITAL, AND ONLINE CERTIFICATES

The article examines the role of microcredentials as economic signals in the labor market under digital transformation and structural changes.

The digitalization of the economy, the spread of artificial intelligence, hybrid wars and structural changes in the labor market are changing the criteria for assessing candidates. A traditional educational diploma increasingly does not reflect relevant skills, which increases the information asymmetry between the employee and the employer. At the same time, online certificates and microcredentials are becoming an important mechanism for fixing competencies, but their market value is highly dependent on external verification, the reputation of providers and the connection with professional standards.

The relevance is driven by the declining informational value of traditional diplomas and the need for rapid verification of current skills, particularly in Ukraine during martial law. The purpose is to theoretically substantiate the signaling function of microcredentials based on signaling and human capital theories, and to demonstrate their macroeconomic impact. The study applies theoretical analysis, an institutional approach, content analysis of a portfolio of over 50 certificates, and graphical modeling. It is proven that a portfolio of microcredentials forms clustered competency profiles with higher signaling power than single diplomas, as they demonstrate continuous learning capacity. Macroeconomic analysis shows that microcredentials reduce barriers to specialized qualifications, shifting the supply curve rightward. However, under skill-biased technical change (SBTC), demand for digital and analytical skills grows faster, shifting the demand curve more significantly. This establishes a new equilibrium at higher real wages and greater employment of qualified workers. The empirical base includes analysis of certificates from international providers, confirming their role in reducing information asymmetry between employers and job seekers. The results substantiate the need to integrate microcredentials into Ukraine's National Qualifications Framework to reduce structural unemployment and enhance labor market adaptability.

Keywords: micro-credentials, online certificates, labour market, signaling theory, human capital, macroeconomics, digitalization, information asymmetry, Ukraine.