

## СПИСОК ЛІТЕРАТУРИ:

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### **IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGIES ON LABOR PRODUCTIVITY**

In general, the spread of Information and Communication Technologies (ICT) can affect life standards for society and decrease production costs for companies too. However, it might affect the wages distribution through variety groups of society. Especially, the most unprotected groups could be the low-skilled workers and unskilled workers. Therefore, the government should not just set up the minimum wage but provide special training and classes for these workers to retrain according to labor supply (labor to be employed by companies).

Consequently, the investigation of labor productivity statistics can be a sufficient indicator of efficient government labor policy. Sufficient deviation with positive sign from median value can signal about efficient government employment policy or not sufficient effect of ICT that affects labor market. Negative deviation, in contrast, can be an indication of either unproductive government employment policy or enhanced productivity from ICT. In this context, monitoring labor productivity is necessary since it could be a forward indicator of wage level in the future.

Implementation of Information and Communication Technologies like the Artificial Intelligence (AI) in production have the potential to transform classical work in a more fundamental way: as automatization becomes more productive, more tasks could be done at the same period due to combination of machines with AI instead of labor.

George J. Borjas [1, с. 97] mentioned that under perfect competition the labor productivity equals the nominal wage on the

market. This assumption can give an overview of the labor market transformation and a general overview of wage fluctuations. George J. Borjas inferred from equation (1) that, aiming to maximize profit, a company will persist in recruiting labor until the cost of labor ( $w$ ) stays below its corresponding productivity ( $MP_L$ ) per unit of output produced at a given price ( $p$ ).

$$\frac{MP_L}{w} = \frac{MP_K}{r} \tag{1}$$

The equation (2) also applies to the marginal productivity of capital. A company will persist in acquiring capital as long as the cost for capital in a form of the interest rate ( $r$ ) remains lower than its corresponding productivity ( $MP_K$ ) per unit of output produced at the given price ( $p$ ). More specifically, each company uses labor and capital factors of production simultaneously and the decision to use labor instead capital more extensively or vice versa depends on their productivity [1, c. 98].

$$w = p * MP_L \text{ and } r = p * MP_K \tag{2}$$

We should consider the recent expansion of ICT, particularly the widespread adoption of OpenAI’s generative model known as GPT-3.5/4 by companies [3]. It is likely to result in beneficial effects on production optimization and the productivity of both labor and capital. In terms of substitution of physical human labor by the capital (and AI as the key element for enhancing return on capital) the Growiec describes four stages of substitution of labor by capital [2, p. 52]. First two stages of physical human labor transformation included simple mechanization and automatization with robotics, making most of simple processes have become mainly automated. The third stage introduces utilizing the Machine Learning algorithms to replace cognitive human labor to prepare regression, classification, and other tasks due to self-improvement software. The last crucial fourth stage of AI implementation will use quantum computers leading to superintelligence in computations.

The widespread adoption of Information and Communication Technologies (ICT), including generative AI, could enhance production efficiency and reduce costs. However, it could exacerbate wage disparities, particularly impacting vulnerable groups like low-skilled workers. To address this, governments should offer targeted training programs. Labor productivity data serves as a valuable metric for evaluating effective labor policies. Monitoring these trends can forecast future wage levels. As ICT advances, it transforms traditional

work, increasing automation and productivity that highlights the pivotal role of labor productivity in shaping market dynamics. Additionally, the evolution of AI presents opportunities for further efficiency gains. Ultimately, leveraging technology responsibly can optimize productivity while ensuring equitable outcomes for workers.

#### REFERENCES:

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### **РОЗВИТОК SOFT SKILLS У ЗДОБУВАЧІВ ОСВІТИ СПЕЦІАЛЬНОСТІ «МЕНЕДЖМЕНТ»: МЕТОДИЧНЕ ПІДГРУНТЯ**

Компетентності — це основа успішної діяльності професіонала будь-якої сфери, менеджер не є виключенням. У сучасних умовах розвитку вітчизняного і зарубіжного ринку праці [5] конкурентоспроможні фахівці повинні володіти на високому рівні не лише професійними компетентностями, але й уміло налагоджувати комунікацію, вести переговори, працювати в команді, генерувати нові ідеї, критично мислити тощо. Тобто роботодавці звертають посилену увагу до soft skills, під якими розуміють «комплекс умінь або навичок, необхідних для міжособистісного спілкування, досягнення цілі за допомогою критичного та творчого мислення, а також особистісних складових частин емоційного інтелекту, які впливають на життя та працевлаштування майбутніх фахівців» [4, с. 267].

Менеджер як спеціаліст, ключовим завданням якого відповідно до класичної політекономії є планування, організація, мотива-