

STRATEGIC DIRECTIONS OF INCLUSIVE DEVELOPMENT OF THE IT INDUSTRY IN UKRAINE

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Abstract. The *purpose* of the article is to study the strategic directions of inclusive development of the IT industry in Ukraine, the activation of which will contribute to the further growth of this sphere. *Methodology.* The study is founded upon a thorough review of extant literature and authentic case studies. The key strategic directions of inclusive development of the IT industry in Ukraine are considered. The primary challenges and opportunities for enhancing the accessibility of IT education, augmenting employment opportunities within the industry, and fostering the digital integration of socially disadvantaged groups have been identified. *Results.* It is recommended that policies aimed at the promotion of digital inclusion be developed, and that measures be taken to create an environment conducive to the development of technology that is inclusive. The conclusions indicate several important aspects that require attention and further development for the successful transformation of the IT industry in Ukraine, namely: expanding the availability of IT education; inclusive access to technologies; supporting innovations and startups; expanding cooperation between the state, business and civil society; improving cybersecurity and data protection. It is evident that Ukrainian IT companies have the opportunity to attract new international partners who seek to support Ukraine during the war. The establishment of these conditions fosters the development of collaborative research initiatives, facilitating the dissemination of knowledge and technological expertise among relevant parties. *Significance / Originality.* This study posits the hypothesis that a comprehensive evaluation of the advantages and disadvantages is instrumental in formulating strategic directions for the inclusive development of the IT industry in Ukraine.

Keywords: inclusive development, IT industry, prospects, IT education, strategic directions.

JEL Classification: O33, O38, L86

1. Introduction

This study posits the hypothesis that a comprehensive evaluation of the advantages and disadvantages is instrumental in formulating strategic directions for the inclusive development of the IT industry in Ukraine.

Nevertheless, the Ukrainian IT industry, despite its dynamic development and significant contribution to the economy, is currently facing a number of critical problems that could significantly affect its future. In the context of a full-scale war, economic recession, and internal problems, such as a shortage of qualified personnel and difficulties with organising business processes, this creates risks for the further stability and development of the IT sector (Kutsyk, Tulika, Protsykevych, 2024).

In view of the challenges identified, there is an imperative to formulate novel strategies or refine existing ones with the objective of providing support to the industry. A detailed analysis is imperative to

ascertain the impact of extant problems on the IT industry, as well as to identify strategic directions for inclusive development that will ensure stable growth and strengthen Ukraine's position in the information technology market.

Research on the Ukrainian IT industry is of interest to many scientists. Thus, in the works of Ukrainian scientists (Vynnychuk, Skliaruk, 2015; Verlanov, Verlanov, 2010; Ivanov, Soldak, 2016) the IT sector, its characteristics and development prospects in Ukraine are studied. Research on global trends in the development of the IT sector is presented in the work of Zadorozhniuk N. (2018). The development of the IT market in Ukraine in recent years is considered in the article by Zhuravlyov O. V. and Simachov O. A. (Zhuravlyov, Simachov, 2018), who analysed the current state and prospects of the information technology industry. Consequently, the preponderance of studies in the IT sector signifies its

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pertinence and the mounting interest of scientists in this domain.

2. Key Aspects of the Development of the IT Industry in Ukraine

In view of the present challenges confronting Ukraine, including the imposition of martial law and the necessity for economic recovery, the advancement of the information and technology sector assumes particular significance. The IT industry of Ukraine is exhibiting remarkable growth and innovative capacity, thus attracting the attention of the international community. In such circumstances, the IT sector has the potential to function as a catalyst for economic development, thereby contributing to stability and income growth. Information technologies ensure the production of competitive products and services on the global market, which in turn stimulates profitability and investment attraction.

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problems that could seriously affect its future. In the context of a full-scale war, economic recession, and internal challenges, such as a shortage of qualified personnel and difficulties in organising business processes, risks arise for the further stability and development of the IT sector.

The development of the IT industry is identified as one of the primary drivers of economic growth in Ukraine. Concomitantly, a pivotal element of this process is the assurance of inclusivity, which entails the provision of equitable access to IT education, employment, and technologies for all social groups. The promotion of inclusive development has been demonstrated to contribute not only to the enhancement of social justice, but also to the augmentation of a nation's competitiveness on the global stage.

In the contemporary context, the information technology industry occupies the third position in the hierarchy of export sectors in Ukraine, surpassed only by the traditional sectors of agriculture and mining.

In Ukraine, there are several promising areas for the further development of the IT industry,



Figure 1. Development directions of the IT industry in Ukraine

Source: (Zadorozhniuk, 2019)

including neural networks and machine learning, the application of IT in medicine, IT outsourcing and IT outstaffing, as well as others (see Figure 1).

In the contemporary context, Ukraine possesses the latent capacity for advancement in the aforementioned domains. However, it is evident that the field of IT outsourcing is undergoing the most rapid expansion. The development of IT outsourcing in Ukraine is characterised by several notable features. Primarily, a significant number of domestic IT companies concentrate their efforts on foreign markets. Secondly, outsourcing companies are predominantly concentrated in major cities (Zadorozhniuk, 2019).

3. Strategic Directions for Inclusive Development of the IT Industry in Ukraine

In addition, the top 10 largest outsourcing IT companies in Ukraine have remained virtually unchanged for several years (see Table 1). It is evident that EPAM Ukraine has established itself as a consistent leader within the field of information technology companies in Ukraine.

The substantial increase in the number of employees can be attributed to active hiring practices and the company's strategic expansion. It is evident that, in general, there has been a decline in the number of specialists within the majority of companies. This phenomenon may be attributed to a number of factors, including the relocation of specialists to foreign countries, a decrease in the number of projects, and other variables.

The assurance of sustainable inclusive advancement within the IT industry in Ukraine constitutes a pivotal element within the nation's economic development

strategy. The overarching strategic directions for inclusive development of the IT industry in Ukraine encompass pivotal aspects that are poised to facilitate the involvement of diverse social groups in the digital economy, the establishment of equitable opportunities, and the sustainable growth of the industry (Figure 2).

The synergy of these factors is instrumental in fostering a sustainable and inclusive development of the IT industry in Ukraine, ensuring that all citizens have equal access to technology and the opportunity to participate in the digital economy.

In order to achieve inclusive development of the IT industry in Ukraine, a comprehensive approach is required that ensures equal opportunities for all social groups, promotes the development of innovative technologies, and creates a favourable environment for business. These initiatives are poised to enhance Ukraine's competitiveness in the global IT services market and contribute to the nation's sustainable socio-economic development.

4. Advantages and Disadvantages of Inclusive Development of the IT Industry in Ukraine

To more accurately assess the prospects for the inclusive development of the IT industry in Ukraine, it is necessary to conduct a strategic analysis of advantages and disadvantages (Figure 3).

The following discussion will explore the relative merits and drawbacks of the inclusive development of the IT industry in Ukraine.

Advantages of inclusive development of the IT industry in Ukraine:

1. Equal opportunities for all social groups. Inclusive development allows for the involvement of different social groups in the IT sector, including women, people with disabilities, and residents of

Table 1
TOP-10 largest IT companies in Ukraine as of January 1, 2025

| IT company name | Offices where development is carried out | Specialists in Ukraine | Technical specialists |
|-----------------|---|------------------------|-----------------------|
| EPAM Ukraine | Kyiv, Kharkiv, Lviv, Dnipro, Odesa, Vinnytsia, Zhytomyr, Ivano-Frankivsk, Uzhhorod, Khmelnytskyi, Cherkasy, Chernivtsi | 9570 | 8765 |
| SoftServe | Kyiv, Kharkiv, Lviv, Dnipro, Odesa, Vinnytsia, Ivano-Frankivsk, Lutsk, Poltava, Rivne, Ternopil, Uzhhorod, Khmelnytskyi, Chernivtsi | 7279 | 5569 |
| GlobalLogic | Kyiv, Kharkiv, Lviv, Mykolaiv | 5660 | 5388 |
| Ajax Systems | Kyiv, Kharkiv, Lviv, Vinnytsia | 3900 | 1200 |
| Luxoft | Kyiv, Dnipro, Odesa | 3200 | 2800 |
| Genesis | Kyiv, Lviv | 2815 | 1201 |
| Evoplay | Kyiv | 2613 | 1698 |
| ZONE3000 | Kharkiv, Lviv, Dnipro | 2242 | 1828 |
| Intellias | Kyiv, Lviv, Ivano-Frankivsk, Uzhhorod | 2210 | 1761 |
| DataArt | Kyiv, Kharkiv, Lviv, Dnipro, Odesa, Vinnytsia, Ivano-Frankivsk, Kremenchuk, Poltava | 2172 | 1860 |

Source: (TOP-50 largest IT companies in Ukraine)

1. Expanding the availability of IT education

- Introducing free or affordable online courses for socially vulnerable groups.
- Development of public-private initiatives to support IT education in the regions.
- Adaptation of educational programs for people with disabilities.

2. Supporting employment in the IT sector

- Development of retraining programs for unemployed and internally displaced persons.
- Introduction of quotas for employment of representatives of vulnerable groups in IT sector companies.
- Creating mentoring and coaching networks to support young professionals.

3. Digital integration of socially vulnerable groups

- Development of inclusive digital platforms and services.
- Engaging technology to improve the accessibility of government and commercial services.
- Supporting startups in the field of social entrepreneurship and digital inclusion.

4. Expanding co-operation between the state, business and civil society

- Implementation of national digital inclusion programs.
- Support initiatives aimed at increasing digital literacy among the population.
- Involving international organisations in the implementation of inclusive IT projects.

5. Rights protection and cybersecurity

- Creating cybersecurity policies to ensure the protection of businesses and individuals from cyber threats.
- Improving legislation governing the protection of personal data, copyright and the use of technology, with an emphasis on ethical principles and sustainable development.

Figure 2. Strategic directions of inclusive development of the IT industry in Ukraine

Source: compiled by the author

rural and remote regions. This helps ensure equal opportunities for career growth, giving everyone a chance to find employment in the IT sector.

2. Economic development and new jobs. By attracting new participants to the IT industry, the number of jobs increases, which has a positive impact on the economic development of the country. Startups and small businesses focused on inclusion create new opportunities for people with different needs.

3. Innovative solutions and technologies. Inclusive technologies focused on solving the problems of socially vulnerable segments of the population (for example, programs for people with disabilities) can lead to the creation of innovative solutions that will be useful not only for Ukraine, but also on the international market.

4. Improving access to digital technologies in remote regions. Developing infrastructure and access to digital technologies in remote regions allows for creating equal conditions for all citizens, regardless of their place of residence.

5. Social integration and support for vulnerable groups. Inclusive development creates opportunities for the social integration of people with disabilities and other vulnerable groups, who usually have limited access to jobs and education.

6. Improving the country's image on the international stage. The development of inclusive IT technologies and support for social startups create a positive image of Ukraine on the international stage, as the country demonstrates its ability to support innovative and socially responsible initiatives.

Disadvantages of inclusive development of the IT industry in Ukraine:

1. It is evident that substantial financial investments are required. The implementation of inclusive initiatives, in particular in the field of education and the development of digital infrastructure in rural regions, requires significant financial expenditure from the state and private companies.

2. High competition in the global IT market. The Ukrainian IT industry, although it has great potential, faces high competition from other countries with more developed IT industries, such as India or Poland. Attracting investment and creating competitive products can be a difficult task.

3. Technical barriers for people with disabilities. While IT technologies are evolving, creating inclusive solutions for people with disabilities can face technical barriers. Many applications and platforms still do not have enough adapted features for people with disabilities.

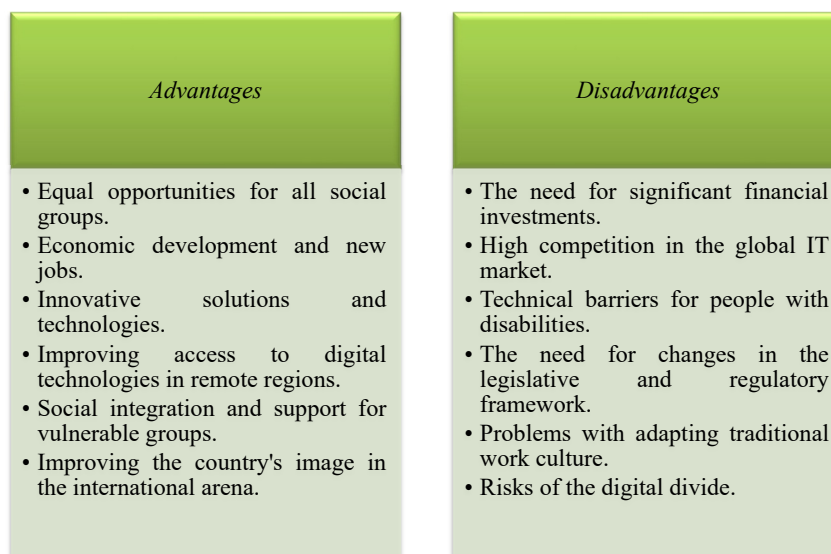


Figure 3. Advantages and disadvantages of inclusive development of the IT industry in Ukraine

Source: compiled by the author

4. The need for changes in the legislative and regulatory framework. The development of inclusive IT initiatives requires changes in legislation aimed at supporting equal opportunities for all segments of the population, creating conditions for the development of inclusive startups and a startup ecosystem. Without this support, the effective development of an inclusive IT sector may be difficult.

5. Problems with adapting traditional work culture. The introduction of inclusive practices into the usual work processes of IT companies may encounter resistance from some employers who are accustomed to traditional methods of personnel management.

6. Risks from the digital divide. Despite the desire for inclusivity, there is still a significant digital divide in Ukraine between urban and rural regions, as well as between different social groups. Not all people have access to modern technologies, which limits their opportunities for integration into the IT industry.

Consequently, the inclusive development of the IT industry in Ukraine confers numerous advantages, including the reduction of social inequality, the development of new technologies, and economic growth. However, it is important to note that there are also many disadvantages associated with this approach. These include the financial and technical complexity

of implementing inclusive initiatives, the need to adapt the legislative framework, and the creation of favourable conditions for the development of inclusive technologies. It is imperative that these advantages and disadvantages be given full consideration when formulating policies and strategies for the continued development of the IT industry in Ukraine.

5. Conclusions

The most promising and innovative area of the modern economy of Ukraine is the IT industry. The inclusive development of the IT industry is a significant factor in the socio-economic progress of Ukraine. The proposed strategic directions are aimed at eliminating barriers to access to IT education, employment and digital technologies. The implementation of a comprehensive approach to digital inclusion has been demonstrated to contribute to the creation of equal opportunities for all segments of the population, as well as increasing the country's innovative potential.

The development of inclusive technologies, the improvement of digital skills, the provision of support for startups, the development of cybersecurity and environmental standards, and the attraction of investment represent a series of initiatives which have the potential to open up new prospects for Ukraine in the global technology market.

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Received on: 09th of February, 2025

Accepted on: 13th of March, 2025

Published on: 31th of March, 2025