

ADMINISTRATIVE-LEGAL AND ECONOMIC INCENTIVES FOR THE DEVELOPMENT OF INFORMATION TECHNOLOGIES

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Abstract. This scholarly publication examines the administrative, legal and economic incentives for developing information technology. It is evident that digitalisation has permeated almost all facets of public life, with information technologies being employed in the production of goods, trade, and the provision of services. These technologies play a significant role in enhancing the mechanism of public administration, reducing corruption risks, and providing both public administration bodies and citizens with effective tools to meet private and public needs. Concurrently, within the national apparatus of the state and economic relations, the implementation of information technologies frequently confronts bureaucratic procedures, as well as the absence of adequate administrative law regulation (i.e., gaps and collisions in the regulatory framework). Moreover, inadequate financing, investment, tax pressure and other adverse factors often impede the effective implementation of innovative information technologies in legal and economic practice. A system of effective legal and economic incentives has the potential to address the challenges arising in the digitalisation of administrative and economic relations. These relations are regarded as legal instruments for achieving both private and public objectives of participants in legal relations. Legislative measures encompass the streamlining of procedures for the registration and restructuring of information technology companies, in addition to the establishment of bespoke legal frameworks governing their operations. Economic incentives include tax benefits, special economic zones and industrial parks, investment attraction mechanisms, grants, the organisation of international economic forums, and other forms of international co-operation by public administration bodies. They also include state guarantees for loan programmes. In the context of intense international competition in the digital technology market, it is concluded that the creation of an effective system of administrative, legal and economic incentives to develop information technologies in Ukraine is an urgent task for public administration bodies. To ensure the further development of information technologies in Ukraine, it is essential to clearly define the objectives, as well as the legal and economic mechanisms for supporting digitalisation processes and fostering a favourable investment climate.

Keywords: information technologies, administrative-legal regulation, legal means, economic incentives, public administration, digital tools, digitalisation, automated information systems, artificial intelligence.

JEL Classification: O32, P48, H83

1. Introduction

Information technology is widely regarded as a driving force of modern civilisation. Digitalisation has become pervasive, encompassing almost all domains of public life. Information technologies have been integrated into the production of goods, trade, and the provision of services. These technologies play a significant role in enhancing the mechanism of public administration, reducing corruption risks, and providing

both public administration bodies and citizens with effective tools to meet private and public needs.

Among the positive outcomes of digitalisation, it is worth noting the development of automated information and telecommunication systems (e.g., the Unified Judicial Information and Telecommunication System), electronic state registers (e.g., the Unified Register of Pre-Trial Investigations, the Electronic Register of Notarial Actions, the State Register of Real

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Property Rights), systems for providing electronic administrative services (e.g., Diia, the unified public services portal), as well as electronic exchanges and trading platforms (e.g., Prozorro – an electronic system through which government agencies, enterprises, and organisations procure goods, works, and services), along with other digital tools used in management, legal, and economic activities.

Concurrently, within the national mechanism of the state and economic relations, the introduction of information technologies often encounters bureaucratic procedures, as well as the absence of adequate administrative law regulation (law gaps and collisions). Moreover, inadequate financing, investment, tax pressure and other adverse factors often impede the effective implementation of innovative information technologies in legal and economic practice.

Legal and economic incentives for the development of information technologies, understood as effective legal instruments for achieving the public and private goals of those involved in legal relations concerning the digitalisation of public administration and the economy, can address the key challenges of digitalisation.

The aforementioned findings corroborate the theoretical and practical significance of conducting an individual study of administrative-legal and economic incentives for the development of information technologies, with a view to formulating specific proposals for amending the current national legislation and legal practice.

It is an inevitable consequence of the scientific process that the focus of researchers should be on the various aspects of the legal regulation of the use and development of information technologies. In this regard, it is essential to highlight the works of V. Antoniuk, M. Babyk, D. Bilenka, O. Bernaziuk, D. Bondar, O. Hunbina, T. Kovalova, O. Komarov, A. Krakovska, N. Lytvyn, I. Lopushynskiy, K. Oksyutenko, A. Omelchenko, R. Stefanchuk, and I. Tyshchenkova.

The study of legal incentives, as a category of legal means, has been undertaken by legal theorists, including O. Hanzenko, A. Denysova, and O. Onufrienko, amongst others.

However, the development of information technologies has not yet been the subject of a dedicated scientific study, despite the existence of administrative-legal and economic incentives. This underscores the theoretical and practical significance of the present publication.

2. Problem Statement

The purpose of the scientific publication is to examine administrative-legal and economic incentives for the development of information technologies.

The publication's methodology relies on philosophical principles (dialectical laws and techniques such as the unity and struggle of opposites, transition from quantitative to qualitative changes, "negation of negation", and the principles of objectivity and historicism), general scientific principles (systemic, structural-functional and logical methods such as analysis, synthesis, deduction and induction), and special legal research methods (legal formalism as a derivative of axiomatic research, legal modelling and comparative jurisprudence methodology). The study also makes use of well-established scientific approaches, such as instrumental, civilisational, anthropocentric, teleological and synergistic.

3. Research Results

The development of information technologies within a particular state is conducive to stable economic growth and an improved quality of life, as digital goods and services constitute a significant part of the gross domestic product. Moreover, the presence of a sophisticated IT sector has been demonstrated to have a positive impact on the attraction of new investments and affordable loans, whilst concomitantly enhancing the competitiveness of national products in international markets.

Digitalisation can be considered a natural process. Simplification of daily activities and enhancement of production processes, tools and services are sought by both ordinary citizens and business entities alike, with the objective of achieving better outcomes while minimising the time, effort and costs involved.

Conversely, the inactivity of central public authorities in managing digitalisation processes frequently results in the growth of the shadow economy. Moreover, it hinders the implementation of information technologies in practical management and legal practice due to bureaucratic obstacles, corruption, and other negative factors.

It is recommended that the aforementioned concerns be addressed through the lens of instrumental theory of law, which involves a shift in the approach to understanding the essence and potential of law. In accordance with the fundamental tenets of instrumental theory, the concept of law encompasses not merely a system of rights, freedoms, and obligations of individuals and legal entities established or sanctioned by the state, but also a series of effective legal instruments (legal remedies) designed to achieve public or private objectives of legal regulation.

Legal theorists pay considerable attention to the definition and classification of legal remedies. For example, A. Denysova (2010) defines legal remedies as legal phenomena that are manifested through instruments (such as resolutions) and actions (such

as technologies), which serve to satisfy the interests of legal entities and ensure the achievement of personal and public goals.

According to A. Denysova's classification of legal remedies, substantive legal remedies (i.e., remedies that prescribe or provide tools) include obligations, permits, prohibitions, incentives, privileges, rules of law and principles of law. Meanwhile, effective legal remedies (i.e., remedies that act or provide technologies) encompass all processes of legal activity, including the enjoyment, enforcement, application and interpretation of law (Denysova, 2010).

It is her opinion that all legal remedies may be divided into legal incentives and legal restrictions as a result of their generalisation (transformation). The scholar defines legal incentives as mechanisms that foster the desired law-abiding behaviour in subjects by creating conditions that satisfy their subjective interests through the implementation of legal norms. Conversely, legal restrictions function as legal instruments to deter individuals from committing unlawful acts, thereby safeguarding the interests of authorised power entities and the public in protection and defence (Denysova, 2010).

O. Onufrienko's (2004) seminal work established the foundation for the study of legal remedies as a system of substantial and active legal phenomena. This pioneering study introduced the concept of legal remedies as a means through which particular subjects of legal relations achieve private and public goals.

O. Hanzenko identifies the concept of "legal remedies" as a pivotal category within the instrumental theory of law. It is his contention that legal remedies are constituted by a system of legal forms, methods, techniques, and means which subjects of legal relations utilise to achieve private or public goals. This instrumental approach to understanding law enables one to perceive it not only as a set of state-sanctioned prohibitions, obligations and permissions, but also as a system of practical tools for meeting the needs and realising the interests of individuals, society and the state as a whole (Hanzenko, 2016).

It is evident that legal incentives constitute a form of legal remedy that functions as a means of fostering positive legal attitudes and encouraging individuals to engage in socially active behaviour. In this manner, legal incentives can be utilised to achieve both public and private objectives of legal regulation by leveraging available legal instruments.

The effective regulation of artificial intelligence by administrative law constitutes a significant legal incentive for the advancement of information technology in Ukraine.

The Cabinet of Ministers of Ukraine approved the Concept for the Development of Artificial Intelligence in Ukraine by Order No. 1556-p dated December 2,

2020 (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Concept for the Development of Artificial Intelligence in Ukraine", 2020). Nevertheless, the Concept is a program document that contains declarative norms and goals of legal regulation in the relevant areas of public relations.

More specific measures for the introduction of artificial intelligence into actual management and legal practice are available in the Action Plan for the Implementation of the Concept for the Development of Artificial Intelligence in Ukraine for 2025-2026 by Order No. 457-p of the Cabinet of Ministers of Ukraine dated May 9, 2025 (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Action Plan for the Implementation of the Concept for the Development of Artificial Intelligence in Ukraine for 2025-2026", 2025).

Among other measures, the Plan provides for the drafting and submission to the Cabinet of Ministers of Ukraine of a bill on the legal regulation of artificial intelligence development; the preparation of cybersecurity recommendations; the use of artificial intelligence technologies to detect unlawful interference in the operation of the electronic procurement system; the application of AI technologies by state authorities for analysing, forecasting, and modeling public administration processes, including the calculation of performance indicators; and the adoption of international standards on artificial intelligence development as national standards (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Action Plan for the Implementation of the Concept for the Development of Artificial Intelligence in Ukraine for 2025-2026", 2025).

As a result, in accordance with the Action Plan for the Implementation of the Concept for the Development of Artificial Intelligence in Ukraine for 2025-2026, a key task for public administration authorities is to develop and adopt a prospective Law of Ukraine "On Artificial Intelligence", taking into account the provisions of the EU Artificial Intelligence Act, which entered into force on August 1, 2024 (The European Law on Artificial Intelligence has entered into force. On the basic requirements and obligations when using artificial intelligence, 2024).

In the context of administrative law incentives for digitalisation, it is important to note that the legal regulation of the use of information technologies in various spheres of public relations falls within the competence of the Ministry of Digital Transformation of Ukraine.

In accordance with the Regulation on the Ministry of Digital Transformation of Ukraine, approved by Resolution No. 856 of the Cabinet of Ministers of Ukraine dated 18 September 2019, the Ministry of Digital Transformation is the principal authority

within the system of central executive bodies responsible for formulating and implementing state policy in the following areas: digitalisation, digital development, the digital economy, digital innovations and technologies, robotics and robotisation, e-governance and e-democracy, the development of the information society and informatization; electronic document management; the development of digital skills and the protection of citizens' digital rights; open data, public electronic registers, the development of national electronic information resources, electronic communications and the radio frequency spectrum, the development of broadband Internet access infrastructure, e-commerce and business; electronic and administrative services; electronic identification and trust services; the development of the IT industry; and the development and functioning of the special legal regime of Diia.City, as well as cloud services (Regulation on the Ministry of Digital Transformation of Ukraine, 2019).

Moreover, the Ministry of Digital Transformation is responsible for coordinating the activities of the ministries, other central executive bodies, local state administrations, as well as state enterprises, institutions, organisations and state economic associations, and educational institutions on issues within its remit. It is also tasked with providing these entities with the necessary methodological assistance (Regulation on the Ministry of Digital Transformation of Ukraine, 2019).

In the context of the aforementioned points, particular emphasis should be placed on the analysis of the capacity of the special legal regime "Diia. City" in facilitating the development of the national economy. Diia.City comprises a series of economic, administrative and legal incentives to perpetuate the active digitalisation of public relations, encompassing economic relations (particularly the development of the IT sector) and public administration relations.

According to the information provided on the official website <https://city.diia.gov.ua/>, Diia.City constitutes a distinctive legal and tax environment for technology companies in Ukraine. This legal regime combines favourable tax conditions with effective mechanisms that allow companies to establish a transparent corporate structure, attract foreign investment more easily, and utilise additional mechanisms to protect intangible assets (intellectual property).

Benefits for Diia.City residents comprise labour taxes: 5% personal income tax; Social Security fee (22% of the minimum wage); 5% military fee; corporate tax: 9% exit capital tax or 18% income tax. In terms of investment promotion, dividends accrued by a resident company are taxed at 0% on the income of individuals, provided they are paid no more than once every two years. There is also a tax rebate on the amount invested in Ukrainian startups (Diia.City, 2025).

The advantage of Diia.City is that it offers an alternative employment model. Each company can select the hiring method that works best for them. In addition to the standard formats set out in the Labour Code and co-operation with individual entrepreneurs, companies can sign a GIG contract with Diia.City. GIG contracts represent a novel alternative to conventional employment contracts, offering a combination of the advantages of both. These contracts permit the demonstration of genuine revenue and the payment of moderate taxes, while providing fundamental social guarantees for specialists. The administration process is streamlined (Diia.City, 2025).

At the same time, co-operation with individual entrepreneurs will still be available. Companies that pay income tax and whose annual income does not exceed 40 million UAH can co-operate with individual entrepreneurs and other single tax payers without restrictions throughout the special regime period. For all other residents, payments to individual entrepreneurs and other single tax payers should not exceed 20% of total expenses incurred in the previous year (Diia.City, 2025).

IP protection guarantees are also important in Diia. City. By default, property rights to computer programs and databases will belong to the customer (employer). The parties can also agree on other conditions and fix them in the contract. The Diia.City conditions are fixed for 25 years: the state guarantees Diia.City residents stability for 25 years, as well as the observance of their rights and legitimate interests (Diia.City, 2025).

Thus, Diia.City offers a variety of innovative digital tools and tax incentives designed to promote the growth of Ukraine's national IT sector and its broader economy. It is important that these digital and financial instruments are properly regulated administratively and legally, and that they constitute a special legal regime known as Diia.City.

It is worth noting that, according to the Ministry of Digital Development and based on the 2024 E-Government Development Index – an international ranking compiled by the United Nations to assess the level of e-government and citizen engagement through digital services – Ukraine ranks fifth globally in the development of digital public services (Prasad, 2024).

Moreover, pursuant to the Online Services Index, Ukraine has climbed from 102nd place to fifth during the tenure of the Ministry of Digital Development. South Korea tops the list of countries ranked by the level of development of their digital public services, with Denmark in second place, Estonia in third place, and Saudi Arabia in fourth place.

Additionally, Ukraine ranked first in the e-participation indicator, which evaluates the extent to which citizens

engage with government processes through online platforms (Prasad, 2024).

A. Prasad notes that digitalisation has already become an integral part of Ukrainian life, with almost 21 million Diia users having access to 21 documents and over 30 services. Recently, certificates for marriage, divorce and name changes have been made available through the app. Almost 6 million people use the Diia portal to access over 120 services (Prasad, 2024).

Therefore, the Diia mobile application and the Diia.City legal regime's official website serve as key digital tools, providing users with information on administrative, legal and economic incentives for the development of information technology (digitalisation).

Adequate intellectual property protection is crucial for stimulating the development of information technologies. Accordingly, the National Economic Strategy until 2030 identifies the inadequate protection of intellectual property rights as an obstacle to realising Ukraine's innovative potential. Protecting intellectual property rights is crucial for fostering entrepreneurship, promoting innovation and the digitalisation of public life, and developing the domestic economy (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the National Economic Strategy for the Period until 2030", 2021).

In the 2020 Global Innovation Index, Ukraine improved on last year's result by two places, reaching 45th position. However, the country continues to face challenges related to insufficient intellectual property protection. According to the 'Protection of Intellectual Property Rights' component of the 2019 Global Competitiveness Index, Ukraine scored only 3.4 out of 7 points, placing it 118th worldwide (significantly lower than other post-socialist countries) (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the National Economic Strategy for the Period until 2030", 2021).

Such indicators are unacceptable given Ukraine's European integration aspirations and clear goal of full EU membership.

According to the 2019 International Property Rights Index, Ukraine lags far behind in the perception of intellectual property protection (105th place) and in combating piracy (93rd place), despite the relatively high level of patent protection (43rd place in the world) (The Resolution of the Cabinet of Ministers of Ukraine "On Approval of the National Economic Strategy for the Period until 2030", 2021).

Consequently, one of the primary tasks of national public administration bodies is to establish an effective legal and administrative framework for protecting intellectual property.

On January 1, 2023, a new version of the Law of Ukraine "On Copyright and Related Rights" (The Law

of Ukraine "On Copyright and Related Rights", 2024) came into force. It regulates matters relating to the acquisition, exercise and protection of personal and property copyrights and/or related rights, as well as special (*sui generis*) rights relating to copyright and/or related rights.

The aforementioned legislation was adopted in accordance with the provisions set out in the European Union law. Nevertheless, the practical implementation of this law and strict compliance by all subjects of legal relations remain pressing issues.

In particular, there is a need to significantly intensify efforts to counteract the proliferation of pirated products, i.e., audiovisual works and software, in Ukraine. European experts assess the level of intellectual property protection not only by the content of the law, but also by the effectiveness of the protection of copyright and related rights in practice.

The above underscores the need to strengthen criminal liability for violations of copyright and related rights. These include the illegal reproduction, use, and distribution of scientific, literary, or artistic works, computer software, and databases; unauthorized reproduction, use, and distribution of performances, phonograms, videograms, and broadcasting programs; unlawful copying and distribution via audio and video tapes, disks, or other media; camcording, card sharing, and other intentional infringements of copyright and related rights, as well as the financing of such activities when they cause significant material damage (Art. 176 of the Criminal Code of Ukraine).

Currently, such actions are punishable by a fine ranging from three hundred to one thousand tax-free minimum incomes, correctional labour for up to two years, or imprisonment for the same term. If these offences are committed repeatedly, as part of a prior conspiracy by a group, or cause significant financial damage, the penalties increase to a fine ranging from one to two thousand tax-free minimum incomes, correctional labour for up to two years, or imprisonment for two to five years (The Criminal Code of Ukraine, 2025).

In order to provide an additional legal incentive for citizens to comply with the provisions of the Law of Ukraine "On Copyright and Related Rights", it would be advisable either to remove the option of a fine as a penalty under the relevant article of the Criminal Code of Ukraine, or to increase the amount of such a penalty significantly.

Furthermore, it is advisable to increase liability for copyright violations relating to inventions, utility models, industrial designs, integrated circuit topographies, plant varieties or proposals for technical improvements (Article 177 of the Criminal Code of Ukraine).

4. Conclusions

The study of administrative, legal and economic incentives for the development of information technologies suggests that, in the context of intense international competition in the digital technology market, public authorities must establish an effective system of administrative, legal and economic measures to promote the development of information technologies in Ukraine.

Legal and economic incentives, by their very nature, are legal remedies that are designed to achieve the private and public goals of participants in legal relations. Legislative measures encompass the streamlining of procedures for the registration and restructuring of IT companies, in conjunction with the establishment of a bespoke legal framework governing their operations. Economic incentives include tax incentives, special

economic zones and industrial parks, investment attraction mechanisms and grants, the organisation of international economic forums, and other forms of international co-operation by public administration bodies. They also include state guarantees for loan programmes.

In policy documents adopted at the level of the National Economic Strategy and Digitalisation Concepts, it is important to clearly define the goals, as well as the legal and economic means of supporting digitalisation processes and creating a favourable investment climate for the further development of information technologies in Ukraine.

Additionally, strengthening criminal liability for copyright and related rights violations would provide an additional incentive for citizens to comply with the relevant law.

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