

THE IMPACT OF DIGITALIZATION ON REDUCING CORRUPTION IN THE ECONOMY

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Abstract: Modern society is facing one of the most serious social problems – the spread of corruption in all spheres of the economy. Moreover, this problem requires a comprehensive and systematic approach to overcome it, including the active participation of the state, organizations and citizens. The state's anti-corruption policy is actively developing and increasingly intersects with the development of digital technologies. Publications devoted to the prevention of corruption usually focus on the analysis of a system of measures aimed at preventing, detecting and eliminating corruption. This study is devoted to the use of such a tool in the fight against corruption as digitalization. Digitalization in the activities of public authorities is a complex process that involves a number of problems that need to be resolved, some of which are discussed in this paper. The use of modern digital technologies and the practice of electronic public administration are one of the effective tools of anti-corruption policy in the digital space. Today, the development, adoption and implementation of modern legislative frameworks for the introduction and application of innovative digital anti-corruption technologies seem relevant.

Keywords: Corruption, anti-corruption, state anti-corruption policy, digitalization, digital technologies, digital platforms, blockchain, artificial intelligence, anti-corruption digitalization.

Introduction: Modern society is in dire need of new, modern, effective legal mechanisms to combat corruption. Activation of actions of public authorities in the analyzed direction is classified as one of the priorities in the anti-corruption policy of the Republic of Uzbekistan [Law of the Republic of Uzbekistan dated 03.01.2017 No. ZRU 419,]. The developed anti-corruption mechanism requires timely improvement and new directions of its development, due to the fact that the negative phenomenon we are analyzing is dynamic, it is characterized by variability and adaptation to existing relationships.

As of now (data published in February 2025), the international non-governmental organization Transparency International has published its annual Corruption Perceptions Index (CPI) for 2024. This index is traditionally published next year (for example, data for 2024 were published in February 2025).



Uzbekistan ranked 121st among 180 countries in terms of perception of corruption in the public sector. According to the 100-point CPI scale, the country received 32 points, which is 1 point less than in 2023 (33 points). This assessment means that the perception of corruption in Uzbekistan remains high, as a score below 50 is usually considered a signal of serious corruption risks.

Briefly about the CPI: The Corruption Perception Index (CPI) is a rating compiled annually by Transparency International through expert assessments and surveys of the business community. It reflects perceptions of the level of corruption in the public sector (not actual cases), on a scale from 0 (very high level of corruption) to 100 (low level of corruption). About the 2025 version: The publication of the 2025 CPI data is expected in February 2026, so at the moment (end of January 2026), the most recent official data is the index for 2024 (published in 2025).

World practice also shows that corruption flourishes, first of all, in government structures, thereby discrediting the authority of public authorities before the people, worsening the economic situation of the country. This is explained, first of all, by the presence of special powers and opportunities for civil servants that allow them to become intermediaries between citizens and government agencies, to make certain decisions that are not always fair from the point of view of public interests, but "beneficial" for their own pockets. Moreover, there is a widespread point of view in the economic literature according to which corrupt relations between government authorities and civil society are widespread in countries with economies in transition, as well as in developing countries.

A program of large-scale reforms is being consistently and persistently implemented in the Republic of Uzbekistan with the aim of sustainable and accelerated development of the national economy, and an active fight against corruption is underway. Based on this, Uzbekistan ratified the United Nations Convention against Corruption in 2008 (New York, October 31, 2003), and in 2010 joined the Istanbul Anti-Corruption Action Plan of the International Organization for Economic Cooperation and Development. With the coming to power of SH.M. Mirziyoyeva the fight against corruption has been elevated to the level of state policy and has become an integral part of the country's large-scale reform.

The widespread introduction of digital technologies contributes to public and public life has become a global trend and has radically changed them. The sphere of public administration in the Republic of Uzbekistan is no exception, where all structural elements are in a state of transformation with the use of IT technologies. The use of advanced digital developments in the fight against corruption has become one of the main government tasks. This is due to the fact that corruption is a serious obstacle to the development of the country and the formation of civil society, and technology, in turn, is one of the main allies in preventing and combating it by not only identifying,

analyzing and monitoring this negative phenomenon, but also contributing to the creation of effective, accountable and inclusive institutions. This is reflected in the concept of the service state, which is consistently implemented within the framework of the state projects "open government", "state and municipal services", "public control", "public initiatives".

There is no doubt that an effective state anti-corruption policy depends on the achievements of scientific and technological progress. The system of control over social processes and the management system itself is changing, which is caused, among other things, by the digitalization of society.

Digitalization of management is understood as a certain stage in its development, when the needs of subjects are met comprehensively through digital platforms and services in the context of a gradual expansion in the use of end-to-end technologies (in particular, the state information system) in the field of anti-corruption, blockchain, artificial intelligence, crowdsourcing anti-corruption platforms, etc.); these are new methods for improving transparency of public administration and business, prevention of corruption, as well as to optimize anti-corruption activities. In this sense, digital technologies can become a powerful and real tool for preventing corruption at the organizational and institutional economic impact level. And if in the doctrine of criminal law preventive measures against corruption were previously formalized as a principle lying in the plane of ideological influence on the individual, then with the advent of digital technologies, much more effective means of influence are revealed.

Thus, one of the effective tools for countering and combating corruption in the context of the digital transformation of society's life is distributed ledger technology (blockchain), designed to eliminate corruption and ensure increased transaction security and lower costs. The effectiveness of this technology depends more on the context than on the technology itself, which can monitor the activities of public entities, digitize services provided by public authorities and ensure transparency and accountability of their activities. Blockchain technology is a decentralized data processing and storage system that ensures their safety and reliability due to its block structure, where each previous block of information is included in the next one without the possibility of changing data after the corresponding operation.

Here are some examples of the use of blockchain technologies in the anti-corruption system; – registration of transactions and contracts – it is possible to obtain a reliable and transparent recording system that is difficult to change or fake;

– voting – can be used to ensure fair and transparent voting, minimizing the possibility of vote fraud;

– distribution of funds and donations – the use of funds and donations in distribution systems to ensure their accurate and transparent distribution;

- accounting system – ensures the security of information and the reliability of recording data related to financial transactions, supplies;
- reporting – it can be used to confirm data on the income and expenses of a legal entity.

A promising area in the anti-corruption fight mechanism should be called the use of IT tools, including electronic document management systems, which ensure the detection, control and prevention of corruption violations, ensure the security of data exchange and transparency of the process of providing public services and interaction between the state and society.

The transition to an electronic document management system is designed to reduce the bureaucratic burden, speed up the processes of receiving, processing and implementing requests, and simplify the application procedure (to save resources).

Neural network programming has significant potential in the field of forecasting corruption manifestations, the capabilities of which allow, based on available information about economic, financial, political, social and cultural factors, to form a "predictive matrix", which will make it possible to determine corruption risks depending on the timing of forecasts, regional specifics, and subjects of legal relations.

One of the promising tools among information technologies may be the use of artificial intelligence. It is clear that this tool has not yet reached the level of practical application that could be used as a way to solve applied problems, but with certain capabilities, within the framework of the issue we are investigating, it has the ability to accelerate the processing of a significant amount of databases; the ability to calculate the likelihood of a corruption scheme through a system of patterns; a system for monitoring compliance with anti-corruption laws. standards; the potential to reduce the influence of the human factor.

However, there are also risks of using artificial intelligence. It may also have a negative scope (it can be used in darknet and corruption schemes). The complexity of its algorithms and the opacity of its calculations reduce trust (it is difficult for a person to trust something that he is unable to understand and explain).

Potential applications of artificial intelligence:

1. E-government is an electronic system of interaction of public authorities with each other and with citizens, thanks to which it is possible to avoid personal communication, seeking services, which reduces corruption risks.
2. Monitoring the work of the procurement system for public needs – monitoring the implementation of transparent and open bidding.
3. Recruitment assistance – assesses the suitability for admission to the service in terms of character strength, existing value systems, needs and attitudes.
4. Detection of corruption risks in the text of regulations.

5. In order to carry out control and supervisory activities, to identify abuses in the planning and organization of control measures, and to detect conflicts of interest.

6. Anti-corruption crowdsourcing platforms, through which a significant number of citizens have the opportunity to publicly report corruption through the Internet.

7. Transparency portals are online platforms operated by governments or non-governmental organizations that publish information about government activities. Examples are open data portals.

8. Distributed ledger technologies such as blockchain, a decentralized and synchronized database provided by a peer-to-peer network where each user has a copy of the data.

The success of anti-corruption measures using digital technologies depends not only on the speed of mastering digital technologies in the provision of public services, but will also be determined by social transformations in society based on an active civic position, building horizontal network management structures, transforming needs and user experience. Thanks to new digital technologies, the public administration system acquires the ability to make decisions in almost real time. Digitalization of anti-corruption control should include the ability to automatically fill in and verify information, including cost reconciliation. In this situation, the employee will not be responsible for the inaccuracy of the data available about him. Such a variant of digitalization of anti-corruption control could meet the current stage of development of control and supervisory activities.

Digital technologies should not be considered as the main and only means of combating corruption. The final result of the struggle depends on the state's anti-corruption ideology, its legal policy and culture. We agree with the opinion that "their absolutization will mean a new, most terrible kind of totalitarianism: a digital concentration camp. Therefore, the priority of the anti-corruption policy of law and figures is also important, such as ensuring the protection of personal data, private rights or the right to privacy."

Conclusion: In conclusion, it should be noted that in order to fully realize the potential of new technologies for the development of a mechanism for preventing and combating corruption, as well as leveling new corruption risks caused by the digitalization of the economy and society, it is important to ensure the availability of such key factors for successful improvement of this area as the level of digital infrastructure and progress achieved in the process creating a digital society – a tech-savvy population with equal access to and ownership of technology. Digital literacy, digitized public records, data, and Internet connectivity are just some of the prerequisites for the application of digital technologies. It should be noted that in the field of combating and combating corruption, they will receive their real effectiveness

only if there is a combination of these factors and a systematic approach to the process of their implementation in practice.

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