THE ROLE AND IMPORTANCE OF INFORMATION TECHNOLOGY AND ARTIFICIAL INTELLIGENCE IN THE FIGHT AGAINST CORRUPTION.

Kodirov Marufjon Ismoiljon ugli
The Law Enforcement Academy of the Republic of Uzbekistan.
A student of Master's programm "Anri-corruption".

Corruption is one of the main problems of the countries, regardless of whether they are developed or developing. Corruption is a serious problem that can paralyze the state or society regardless of which link it is, and threatens to reach its ultimate goal.

Studies show that countries, governments, international scientific institutions and organizations have conducted studies on various experiences and methods to prevent and eliminate corruption during the past period and put them into practice. It is known to everyone that the implementation of practices such as reforming public administration, improving legal norms, strengthening the penal institution, giving broad powers to the power structures in the fight against corruption did not give the expected results.

2.6 trillion US dollars or 5% of the global GDP is spent annually by the countries of the world on corruption.[46] This amount shows how important the fight against corruption is.

Today, a new direction in the fight against corruption, that is, information and communication technologies, which is called the "The 4th Industrial Revolution", is the focus of all countries in the fight against this evil.

Developed countries are achieving effective results in the fight against corruption by introducing information technology, especially artificial intelligence. International organizations also emphasize that member states should use digital technologies in the fight against corruption.

According to the research of the Organization for Economic Cooperation and Development (OECD) in the field of digitization and anti-corruption policy, information technologies can significantly increase the effectiveness of anti-corruption measures and create a completely new ecosystem of relations that can eliminate most of the factors of corruption. Currently, most developed countries are actively using digital technologies to disclose information and prevent corruption.[47]

---

[46] https://blogs.worldbank.org/governance/what-are-costs-corruption
[47] E. Georg. Digital transformation: blockchain and land titles. 20-21 March 2019 Paris. OECD conference center. https://www.oecd.org/corruption/integrity-forum/academic-papers/Georg%20Eder .

On December 11-14, 2018, G20 leaders focused on the most problematic areas during the discussion of the Anti-Corruption Plan for 2019-2021 and formulated the main tasks for ensuring fair and sustainable development. According to him, one of the main means of minimizing corruption offenses is the use of modern and effective innovative technological capabilities.[48] According to this, it is necessary to create a new ecosystem of relations between the state and society, to develop a modern legal framework, and to carry out a targeted, interconnected digitization policy in order to reveal the potential of digitization within the framework of the fight against corruption.

Corruption can lead to a loss of trust in public institutions, hinder economic development and undermine democratic principles. Information Technology (IT) and Artificial Intelligence (AI) have the potential to be effective in this fight by providing tools and solutions to help detect, prevent and fight corruption.

Information technology is a broad term that refers to the use of computers, software, and other digital tools to process, store, and transmit information. It covers a wide range of technologies, from mainframe computer systems to complex networks and databases.[49] Although the emergence of information technology dates back to the beginning of the 20th century, it began to develop during the Second World War and has become one of the most extensive fields.

Artificial intelligence (AI) is a broad branch of information and communication technology concerned with creating intelligent machines capable of performing tasks that typically require human intelligence.[50] Artificial intelligence is a branch of computer science that deals with the creation of computer systems with capabilities typically associated with the human mind, including language understanding, learning, reasoning, problem solving, analysis, comparison, decision making, and the like.

The use of information technology and artificial intelligence in the fight against corruption implies the use of these tools to increase transparency, accountability and efficiency in state and public institutions. It helps detect, prevent and investigate corrupt practices by providing better data analysis, risk assessment and monitoring capabilities.

---

[48]G20 Anti-Corruption Working Group Action Plan 2019-2021 and Extract from G20 Leaders Communiqué. 11-14 December 2018. Page 5. https://one.oecd.org/document/DAF/WGB/RD(2018)10/En/pdf
[49]https://www.techtarget.com/searchdatacenter/definition/IT
[50]https://builtin.com/artificial-intelligence

By examining scientific research, we can divide the content of information technology and artificial intelligence in the fight against corruption into three main categories:

- data collection;
- data analysis;
- making decisions.

One of the main advantages of information technology and artificial intelligence is their ability to collect and store large amounts of data (Big Data). This information can be used to identify mechanisms, trends and anomalies that may indicate the presence of corrupt practices. For example, such information plays an important role in the analysis of information about government contracts, financial transactions and public procurement to detect violations or suspicious activity. The use of data collection technologies through smart technologies, cameras and other monitoring devices can also help detect corruption in real time. For example, surveillance cameras in public places can be used to monitor the behavior of officials and employees, to detect any behavior that may lead to corruption.

Once data is collected, it should be analyzed to identify any mechanisms or anomalies that may indicate corrupt practices. Through the use of artificial intelligence and data analysis tools, it is possible to identify hidden relationships and expose illegal mechanisms that may not be immediately noticeable. For example, predictive analytics can be used to identify high-risk transactions or individuals most likely to engage in corrupt practices. This makes it easier to provide them with a legal solution by conducting investigations, as well as more efficient and targeted use of resources.

One of the most important aspects of information technology and artificial intelligence in the fight against corruption is expressed in decision making. The use of information technology and artificial intelligence can also help improve decision-making in the fight against corruption. By providing better data analysis and risk assessment capabilities, the decision-maker, employee, or supervisor can have a better understanding of how resources are allocated and where to focus more.

For example, artificial intelligence learning algorithms can analyze and predict outcomes at different state levels, allowing decision-makers to choose the most effective anti-corruption strategies and act proactively to prevent them.

The formation of information technology and artificial intelligence in the fight against corruption involves a combination of **technological, institutional and strategic factors.**

Technological factors:

Advances in computer processing power, data storage, and networking have led to the development of information technology and artificial intelligence. These technological developments have made it possible to collect, store and analyze large amounts of data, and to develop sophisticated algorithms and models to identify mechanisms and anomalies.

Institutional factors:

The formation of information technologies and artificial intelligence in the fight against corruption also depends on the institutional context in which these technologies are used. This includes the legal and regulatory frameworks that govern the use of these technologies, as well as the organizational structures and processes that support their implementation. If there are no relevant regulatory documents and specialized institutions that regulate digitization processes, negative consequences may occur.

Strategic factors:

The formation of information technologies and artificial intelligence in the fight against corruption also depends on strategic factors. This includes the development of policies and strategies that facilitate the use of these technologies in the fight against corruption, as well as the allocation of resources to support their implementation. Otherwise, the process may lead to situations where corruption is facilitated rather than eradicated.

The 13 CPI (corruption perceptions index) assessment categories in the annual corruption assessment index by the **Transparency International** organization are also one of the special indicators of the level of electronicization of governments, open data and the use of digital technologies.[51] Denmark, Estonia, and Finland, which have the highest indicators in this rating, are the countries that have effectively used information and communication technologies in the fight against corruption.

They have achieved a significant reduction in the level of corruption as a result of the effective use of digital information technologies in the fight against corruption, mainly in the field of public procurement, anti-money laundering programs, reporting platforms and forecasting .

The following areas are particularly important in the use of information technology and artificial intelligence in the fight against corruption:

Electronic procurement systems:

---

[51] https://www.transparency.org/en/news/how-cpi-scores-are-calculated

Electronic procurement systems (EPS) are online platforms that allow public institutions to purchase goods and services electronically. These systems help reduce opportunities for corruption in public procurement by improving transparency, accountability and efficiency. EPS can be combined with other technologies such as blockchain to provide a higher level of transparency and security. For example, the Georgian government has implemented a blockchain-based EPS that provides real-time monitoring of procurement activities and transparently records all transactions.[52]

Anti Money Laundering software:

Anti-money laundering software is designed to detect and prevent financial crimes such as money laundering and terrorist financing. These software systems use artificial intelligence and machine learning algorithms to detect suspicious mechanisms and actions and alert authorities when necessary. This system works mainly by covering banks and financial institutions.

Financial Crimes Enforcement Network (FinCEN) in the United States uses a system called the Bank Secrecy Act (BSA) E-Filing System[53] to collect and analyze information on financial transactions. The system uses machine learning algorithms to identify suspicious mechanisms and actions and flag them for further investigation.

Forecast analytical programs:

Predictive analytics is the use of data analysis and artificial intelligence to predict where and when crimes will occur. This is of great importance by allowing law enforcement resources to be directed more effectively and preventing crime before it is committed. Of course, in order for such artificial intelligence to work effectively, it should be provided with the necessary database. Of course, this requires funds, technical support and qualified personnel. As an example of such a system, the Los Angeles Police Department (LAPD) has implemented a predictive policing system called PredPOL. The system uses machine learning algorithms to analyze past crime data and predict where crime will occur in the future. This information is then used to direct law enforcement resources to where they are most needed. Through this artificial intelligence, effective results have been achieved in exposing and preventing corrupt practices in this state.[54]

Whistleblower platforms:

---

[52] https://www.u4.no/blog/anti-corruption-reforms-successful-in-georgia-blockchain-stealing-limelight
[53] https://www.fincen.gov/bsa-e-filing-system
[54] J. Bhuiyan . LAPD ended predictive policing programs amid public outcry. https://www.theguardian.com/us-news/2021/nov/07/lapd-predictive-policing-surveillance-reform

Whistleblower platforms are online platforms that allow individuals to anonymously report cases of corruption or wrongdoing. These platforms help overcome the "fear of prosecution" that prevents people from reporting corruption and can provide valuable information for investigations. For example, the Indian government has implemented a whistleblower platform called the Public Interest Disclosure and Protection of Whistleblowers (PIDPI) system.[55] The system allows individuals to anonymously report cases of corruption or wrongdoing and protects against harassment. Because the complaining citizens did not report the corrupt situations they encountered because they were afraid of being persecuted. After the establishment of this system, the fight against corruption-prone organizations and officials and their elimination became more effective.

According to the above, the use of information technology and artificial intelligence in the fight against corruption requires significant material and technical resources and practical experience. Also, although the development and implementation of information systems requires a lot of money, a lot of time, special knowledge and skills, their use is effective and appropriate in any case, considering the damage caused by corruption. Of course, in the use of such information systems and artificial intelligence, we will have the opportunity to prevent and expose corrupt situations through a step-by-step systematic action, clearly directed programs and mechanisms.

---

[55]Shri K. Sanjay Murthy, Ministry of Information and Broadcasting// Complaints under Public Interest Disclosure and Protection of Informers (PIDPI) Resolution. https://mib.gov.in/sites/default/files/english.pdf