



## Directions for expanding the tax base and increasing the efficiency of information in the field of taxation and tax administration through the use of electronic documents

**Abdullaev Shahbozbek  
Nodirsho o'g'li**

Independent researcher at  
Tashkent State University of Economics  
<https://orcid.org/0009-0009-9198-5151>

### ABSTRACT

In order to further improve the tax system in our republic, reduce hidden circulation in the economy and implement the main directions of the concept of improving the fair tax policy of the Republic of Uzbekistan, the President of the Republic of Uzbekistan on July 10, 2019 "Additional measures to improve the tax administration" In order to further improve the activities of the Tax Service bodies, tasks such as automation of the Tax Administration process have been defined in the Decision No. PQ-4389. Also, it is more convenient for business entities that pay taxes on time and operate in compliance with legal requirements to ensure the implementation of the priority tasks set in the framework of the open dialogue of the President with entrepreneurs held on August 18, 2023. in order to create conditions and encourage them, by introducing digital technologies to the tax administration, expanding the tax base and some important reforms implemented in the tax system are studied, foreign experience, scientific and practical conclusions on its application in our country and proposals are developed.

### Keywords:

stability rating, business entities, fiscal policy, crisis, Budget, Tax administration, business entities, tax reporting, tax revenues, tax benefits, taxation, tax rate, preferences.

**Introduction.** Uzbekistan, drawing on the experience of developed countries, is also moving to organize relations between the Government and taxpayers on the basis of electronic interactive services. In the tax system, the interaction between tax authorities and taxpayers is also being improved through digitalization. The adoption of digital technology will allow for successful and effective tax reforms, ensure the smooth taxation of the digital economy, and reduce compliance barriers and the human factor.

### Literature review.

Yu.M. Kukarina in her research, first of all, emphasized that a new subject of research is an electronic document, which is actively being introduced into the field of management and requires the unification of legislation. The first

laws in this area appeared only in the mid-90s of the 20th century. Therefore, in scientific works, she noted that understanding the phenomenon of an electronic document begins with the gradual accumulation of experience in its use. They conducted a comparative analysis of existing definitions and considered the process of forming new concepts of "electronic document" and "electronic signature" from the point of view of document management[1].

V.D. Chervatyuk analyzed the requirements of electronic document management in modern processes and carried out the following:

1) conducted a comparative analysis of modern electronic archives and electronic document management systems, the capabilities of existing product information management

systems, the principles of differentiation of rights to use electronic documents;

2) developed a model of an electronic archive of technical documentation of non-governmental non-profit organizations and a data warehouse for electronic document management;

3) developed a model and algorithms for the exchange of electronic technical documents between NGOs with the required level of information protection;

4) developed algorithms for processing data from the electronic archive of technical documents of non-governmental non-profit organizations, which allowed automating the process of creating new copies of original copies of technical documents;

5) developed a system-functional solution for the electronic archive of technical documents and the information system (IT) of the electronic document management data warehouse of non-governmental non-profit organizations;

6) tested the operation and efficiency of IT algorithms in the laboratory and noted that archiving is a necessary process in the electronic document management system. [2].

In his scientific work, economist A.N. Bisultanov developed a methodology for the development of tax administration in the digital economy. The scientist conducted a comprehensive analysis of tax administration categories and introduced new categories to develop tax administration in the digital economy; studied the instruments and methods of tax administration by systematizing the relations between tax authorities and taxpayers; thirdly, studied the state of modern tax administration in the regions of Russia and assessed its quality level; fourthly, identified the directions of development of tax administration in the conditions of the digital economy using traditional and innovative methods and developed recommendations; fifthly, developed a unified model of accounting and tax administration of the digital tax system, and determined its effectiveness in the process of use. [3].

F.S. Kortikov noted that the development of methods for integrating information resources is one of the most urgent problems in the field of

information systems. In recent years, due to the high diversity of data sources, it has begun to attract particularly close attention. The presence of various types of electronic documents has made the electronic document management system a very relevant information system. The scientist analyzed existing electronic document management systems and compiled a classification of electronic document management systems. He identified the basic principles and requirements for the functioning of the electronic document management system. As part of his scientific work, he created a structural model of the field. He developed numerical methods and corresponding algorithms that provide a quantitative assessment of the joint operation of the structural model. [4].

A.A. Zharkov noted that the electronic document management system regulates and systematically manages the internal and external document management of the organization on the basis of information technologies. [5].

K.O. Schreiter studied the field of electronic document management in more detail. Having analyzed the processes of paper document management in enterprises, he identified a number of significant shortcomings in these processes. In particular, he recognized the storage processes of paper documents and the need to create a large amount of space and appropriate conditions for them as a significant expense. Secondly, he identified the inefficiency of the process of processing or analyzing paper documents due to the difficulty and time required. As a result, he described the introduction of an electronic document management system as a natural necessity. He also defined electronic document management as a single mechanism for working with electronic documents of an enterprise and the introduction of a paperless process. [6].

According to A.P. Stolbov, electronic document management is the storage, reception and transmission of electronic documents in cloud technologies based on regulatory and legal documents and standards. It also involves ensuring their reliable and secure transmission via communication networks. [7].

**Research methodology.**

This article uses comparative analysis and induction and deduction assessment methods. Using the comparative method, data and their analysis on expanding the tax base through the introduction of digital technologies in tax administration were collected and scientific conclusions were drawn.

**Analysis and discussion of results.**

The use of electronic document management systems in the tax system significantly increases the efficiency and transparency of tax accounting and reporting. In this regard, there are some ways to develop modern information technologies in the tax system. In particular:

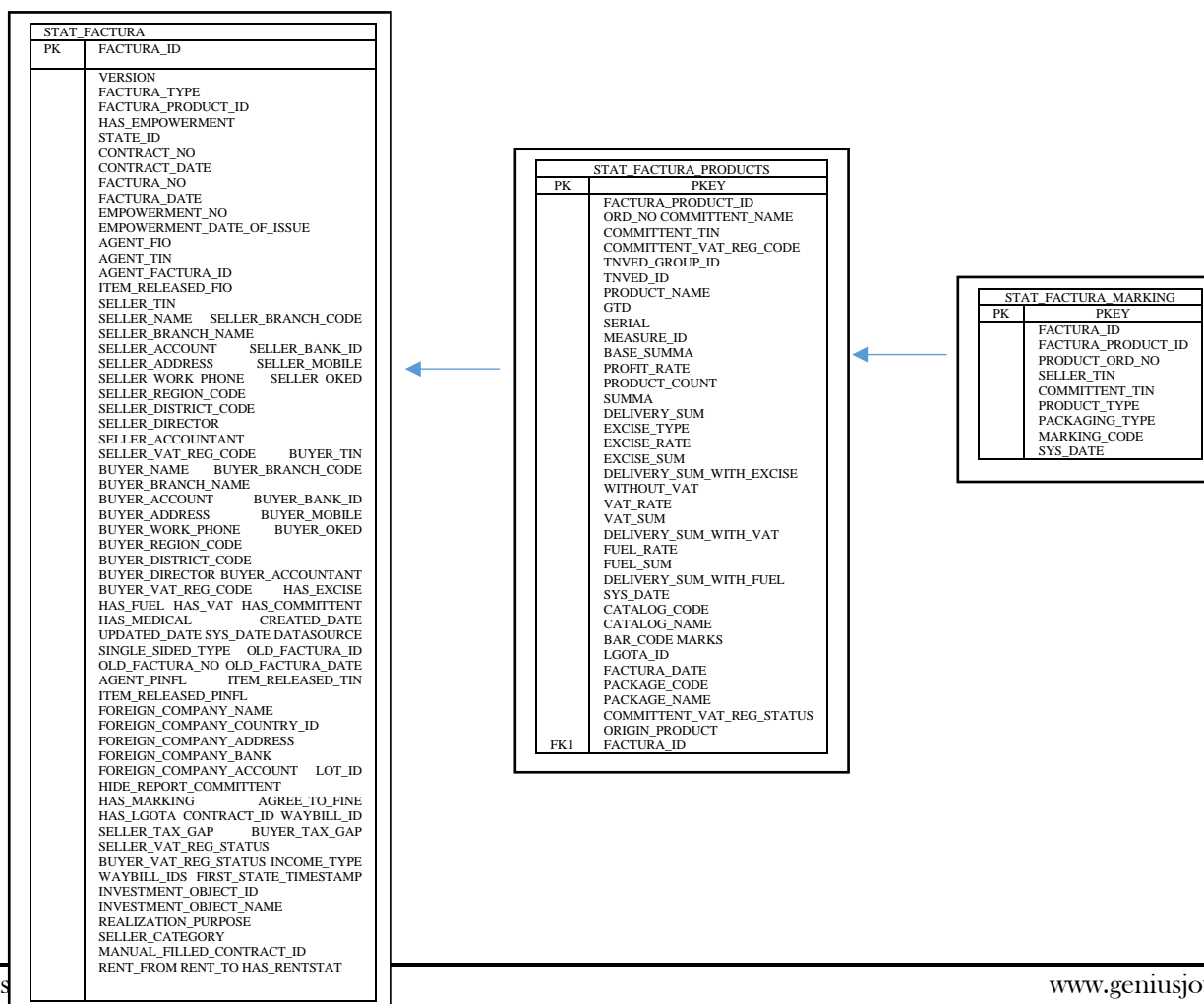
In order to speed up processes, the electronic document management system allows you to automate the exchange of documents between taxpayers and tax authorities, which reduces processing time and reduces the risk of errors. In terms of reducing bureaucracy, electronic document management systems allow you to simplify the procedures for reporting and requesting information, which reduces the bureaucratic burden for taxpayers and tax

authorities. In terms of increasing transparency, the electronic document management system helps to create a single database that stores information on tax obligations and payments. This increases the transparency of the tax system and reduces the possibility of fraud and tax evasion. By improving data quality, automated document processing systems reduce the likelihood of errors in data collection and analysis, which improves the quality of tax reporting and provides more accurate forecasting of tax revenues.

The introduction of an electronic document management system allows you to reduce the costs of paper carriers, transport and postal services, which reduces the overall costs for taxpayers and tax authorities.

Electronic invoices are now playing an important role in the economic relations of business entities. Electronic invoices are stored in the database of the Tax Committee in accordance with the requirements of the Regulation adopted by Resolution No. 522 of the Cabinet of Ministers (Figure 1).

Сохраненные



### Figure 1. Relationship between electronic invoice data in the database <sup>1</sup>.

Figure 1 above shows the compatibility of the information stored in the Tax Committee database. This serves to form the data of electronic invoices in the appropriate order. Using the PL/SQL program, tax authorities can conduct analyses by region, by product, and by other indicators and make various decisions based on them. With the implementation of this procedure, the work efficiency of tax authorities will increase. A system has been created for automatically identifying possible shortcomings by creating dashboards based on the available data. In this case, if business entities submit their VAT returns electronically and issue electronic invoices for the reporting period, they will be identified by the system and a request will be sent to taxpayers asking them to resubmit their reports. To determine this process, we will determine the date of submission of the report for March 2024 and compare the creation dates of the electronic invoices issued for March 2024. If an electronic invoice issued after the date of submission of the report is detected, an application will be automatically sent to the taxpayer through the system. This process is carried out without the participation of tax authorities. This will allow about 1,000 employees to engage in other work and work on themselves. In any developing industry, there are certainly violations that hinder its development. Such situations occur in the electronic document management system, the most common of which is a cyber attack. Cyber attacks are one of the evils that can be used to protect files and servers. To ensure a high level of cybersecurity, complex protection systems and cybersecurity protocols are needed. In this paragraph, we will try to describe cyberattacks and methods for preventing them, as well as important cases encountered in practice.

Cyberattacks and cybersecurity issues. Cyberattacks are defined as attacks that can harm personal information, corporate systems, and even government agencies. These attacks can occur by damaging servers, files, or programs. Some types of cyberattacks are:

1. Malware. Malicious programs damage servers by infecting files or accessing user data. These types of cybersecurity attacks can pose a significant risk to servers.
2. Phishing. Sending fraudulent requests to users via email or other means of communication. Through these types of attacks, attackers can access users' personal information and obtain login credentials to access servers.
3. DDoS attacks. In a Distributed Denial of Service (DDoS) attack, attackers attempt to deny access to a system by sending a large amount of traffic through servers or devices close to the server. This type of cyberattack can cause systems to crash and users to be unable to access the system.

The following methods and protocols are used to ensure cybersecurity:

1. Firewall. Using a firewall is an effective way to protect servers from cyberattacks and unencrypted networks. These firewalls protect servers and files by inspecting network traffic and providing multi-directional routing.
2. Cybersecurity Protocols. Cybersecurity protocols, such as Transport Layer Security (TLS) and Secure Sockets Layer (SSL), help protect data security and data transmission. They are critical protocols for encrypting and protecting data.
3. Regular Data Protection and Control. Regular data protection and control are an important part of preventing potential cyberattacks. It is necessary to implement direct improvements that make initial cybersecurity on servers and networks more feasible.

<sup>1</sup> Muallif tomonidan tayyorlangan.

4. Cybersecurity Analysis and Response. Cybersecurity analysis and response includes the processes necessary to detect and respond to attack scenarios quickly. If an attack is detected, the attack can be isolated through routing boxes and the servers can be protected through the remaining cybersecurity protocols.

5. Security Transformational Presentations. Cybersecurity transformational presentations for users help to improve security through, for example, new audits, security-related courses, and educational materials. This increases the security awareness of users and alerts them to potential threats.

6. Security Testing and Responses. Security tests and responses are important tools for preparing a system to defend against cyberattacks. They help to verify the level of security of the system and prepare to receive and respond to complex cyberattacks.

Important events and developments. Cybersecurity is expected to be at a high level due to the increasing cybersecurity and the protection of critical information for users and companies. The following developments are considered important:

1. Strengthening protection systems for corporate and government networks. Cybersecurity protections for users, corporate networks, and government institutions require a lot of time and money. Countries and companies are required to make improvements

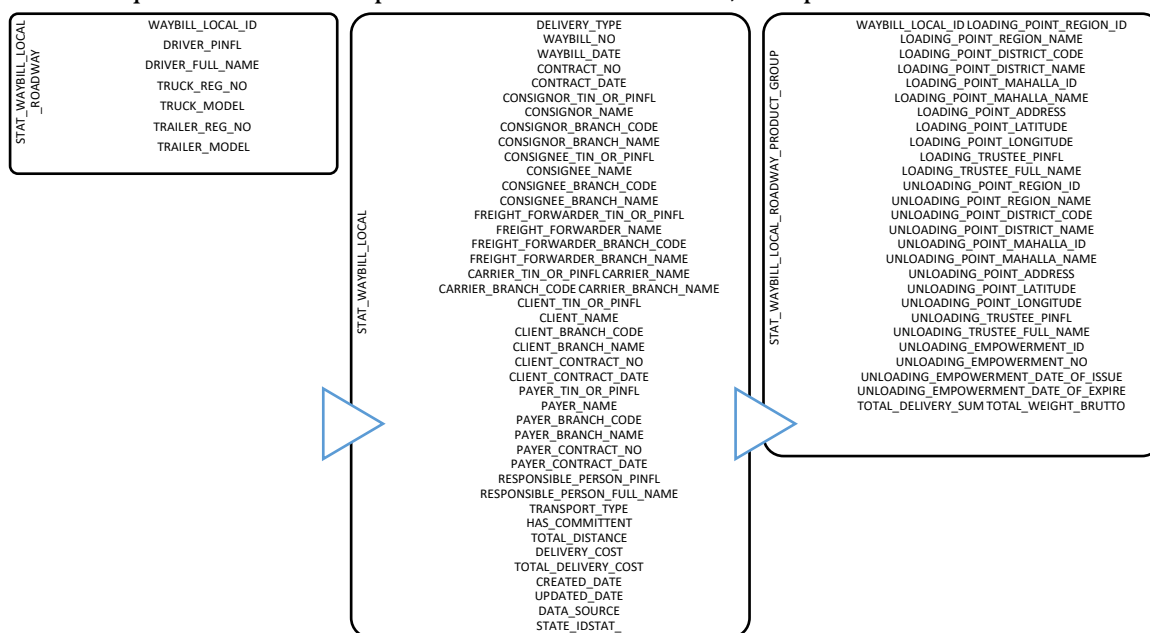
to protect their systems against cyberattacks and cybersecurity risks.

2. Adopting new security protocols and technologies. Technologies and protocols are changing every day. The latest security protocols and technologies play a significant role in ensuring cybersecurity. Manufacturers and companies must adopt new security technologies to meet the requirements of the new era.

3. Educating users. Ensuring cybersecurity requires educating users. The best-protected companies provide training on security support and cybersecurity for their users and employees.

4. Cybersecurity analysis and monitoring. Network and server monitoring and surveillance are essential to cybersecurity. Cybersecurity monitoring tools can help you become more aware of attacks and cybersecurity threats.

Providing information on paper or electronically. Cybersecurity is a significant and ongoing issue that needs to be addressed. Strong and significant efforts are needed to ensure high levels of security and protect against cyberattacks. Companies, government organizations, and users must adopt and implement strong protocols to maintain and enforce cybersecurity. This is a major part of cybersecurity to see its status, identify potential threats, and protect users.



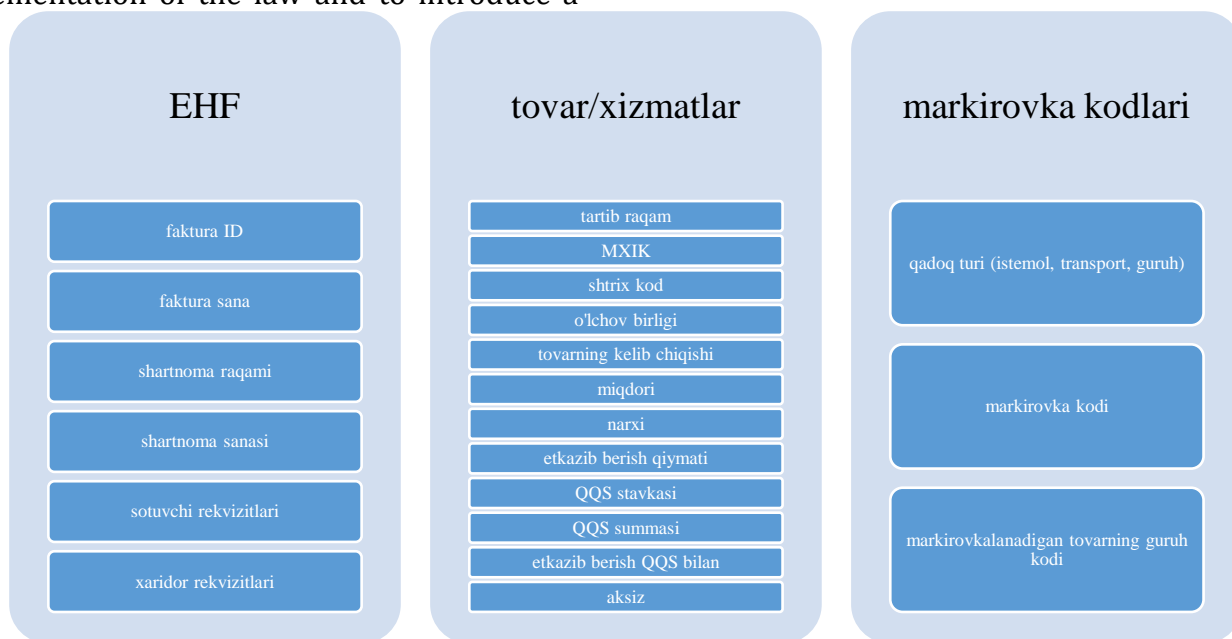
**Figure 2. Interconnection diagram of electronic goods transport waybill tables <sup>2</sup>**

In our country, the system of creating conveniences for business entities has been radically reformed, and systematic measures are being taken to improve the quality of state services. Electronic goods transport bills for business entities have also been introduced in the electronic document management system. The data storage and interconnection of tables of this electronic document are shown in the figure below. This data is stored in the mongo db.

Expanding the use of information and communication technologies in tax administration, including increasing the efficiency of business entities, saving time, and implementing the Resolution of the President of the Republic of Uzbekistan<sup>3</sup> A Cabinet of Ministers resolution was adopted to ensure the implementation of the law and to introduce a

system for electronic registration of goods and transport consignment notes for the transportation of goods and material assets<sup>4</sup>. According to the requirements of the second paragraph of the resolution, the Tax Committee under the Cabinet of Ministers has established the mandatory introduction of a system for the electronic registration, storage and accounting of goods and transport bills of lading in the republic from April 1, 2024 for large taxpayers, and from July 1, 2024 for all business entities. Accordingly, the above system has been developed and implemented. The mongodb database used to store data in the tax system is used.

The essence of the interconnection of electronic invoice databases can also be illustrated by the following figure.



**Figure 3. The essence of the content of EHF data <sup>5</sup>**

The above figure reveals the essence of the interconnection of electronic invoice data. This data is divided into parts for ease of processing and stored in separate tables. Another important reason for using this method is the increasing volume of data. Modern database

servers Currently, the activities of various enterprises cannot be carried out without an information system, which allows you to automate the collection and processing of data. A database has been created to store and access data containing the necessary information.

<sup>2</sup> Muallif tomonidan tayyorlangan.

<sup>3</sup> "O'zbekiston Respublikasining "2022-yil uchun O'zbekiston Respublikasining Davlat budjeti to'g'risida"gi Qonuni ijrosini ta'minlash chora-tadbirlari to'g'risida" 2021-yil 30-dekabrda PQ-73-son

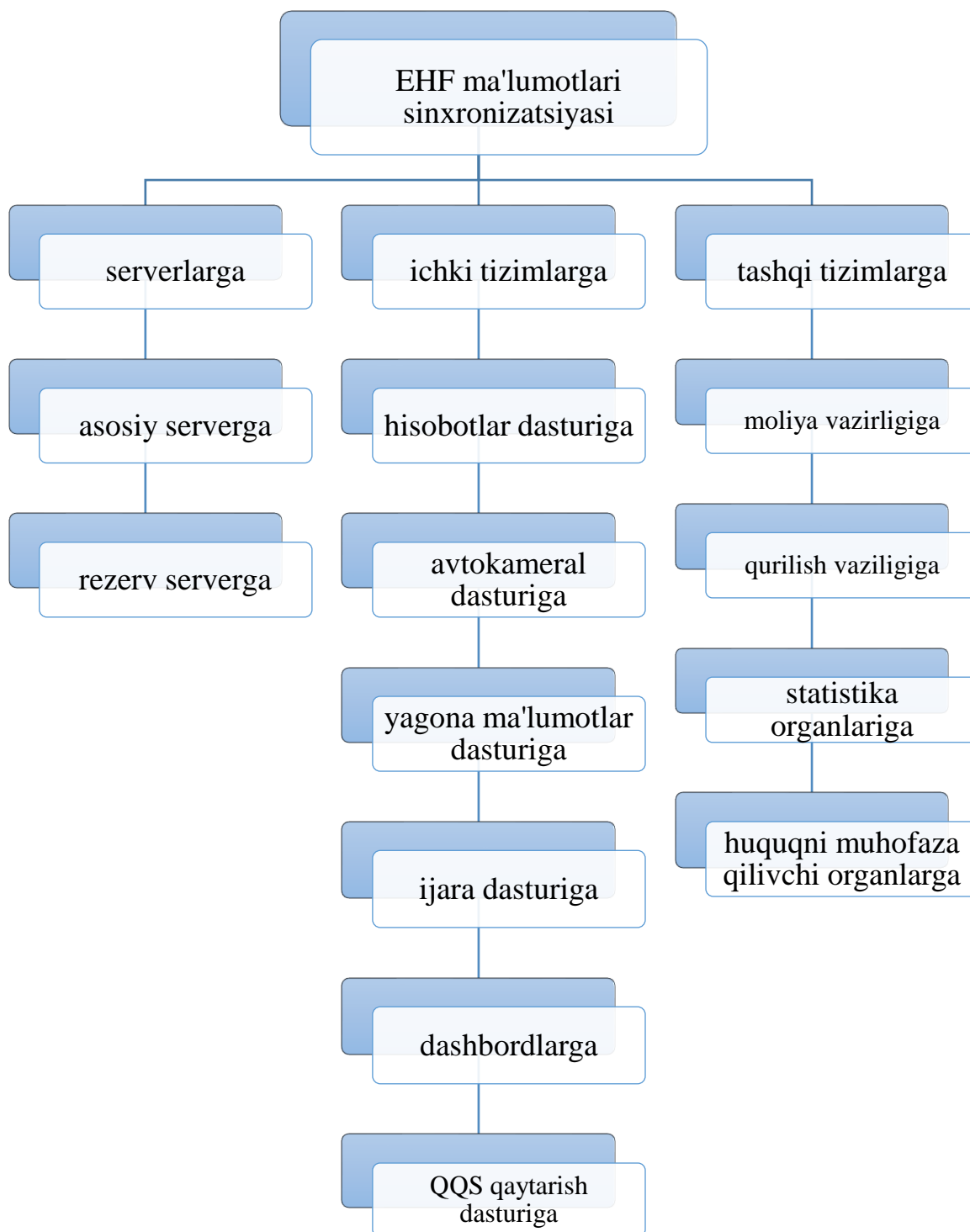
<sup>4</sup> Vazirlar Mahkamasi 2023-yil 21-dekabrda "Soliq ma'muriyatchiligida zamonaviy axborot-kommunikatsiya texnologiyalarini qo'llashning qo'shimcha chora-tadbirlari to'g'risida" 673-sonli qarori

<sup>5</sup> Muallif tomonidan tayyorlangan.

Modern information systems are characterized by a huge amount of information, a complex organization based on the concept of data, which is characterized by the need to satisfy the various requirements of many users. The purpose of any information system is to process information on a real-world scale. In a broad

sense, a database is a collection of information about specific objects of the real world in any field.

The roaming system stores electronic invoice data on servers and simultaneously delivers it to various systems. Electronic invoice data is stored based on a model.

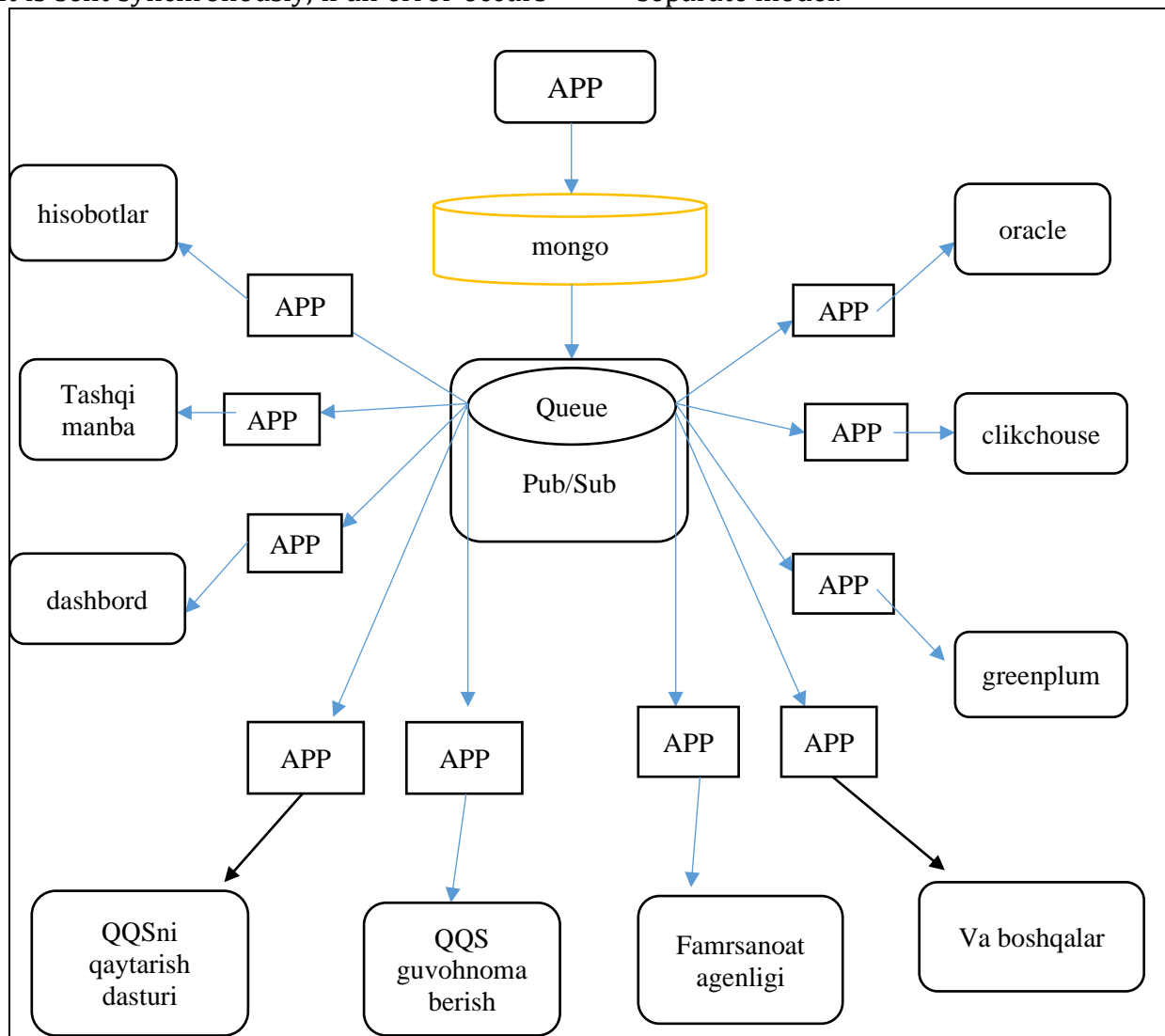


4- Fig. EHF data synchronization model.<sup>6</sup>

<sup>6</sup> Muallif tomonidan tayyorlangan.

The above model specifies which systems EHF data is to be sent to. There are many addresses to which this is sent, so some of them are shown in this figure. EHF data is sent asynchronously, so if it is sent synchronously, if an error occurs

in receiving it to one system, sending it to the others will be limited. As a result, interruptions occur in sending information. In order to prevent these interruptions, we provide a separate model.



**Figure 5. A-synchronous data transmission model <sup>7</sup>.**

The above-mentioned model is one of the most effective models for sending very large amounts of data to several sources. In cases where the EHF data sent to this model is interrupted for various reasons while reaching a source, a separate program resends it at a specified time interval until the system receives it, until it confirms that the data has been received at the intended address, that is, until the response 200 is returned.

By Resolution No. 522 of the Cabinet of Ministers of the Republic of Uzbekistan, a system consisting of a roaming system operator

and operators was created in order to introduce a mutual electronic document circulation system between business entities. In accordance with paragraph 8 of the Regulation, in order to become an operator of an electronic document circulation system:

- a license for the use and maintenance of telecommunications networks;
- real estate objects (buildings, structures, rooms) located on the territory of the Republic of Uzbekistan on the basis of ownership or lease, where certified hardware for storing EHF's is installed;

<sup>7</sup> Muallif tomonidan tayyorlangan.

- an information system that allows for the formation, sending, receiving and storage of EHF;

- a call center and at least one specialist with a higher education in the field of information technology, finance, taxation or accounting and at least 3 years of work experience are required. The main point of this paragraph is the models and technologies for storing and sending EHF data to external sources. Also, with the introduction of this system, the time for preparing and submitting a value-added tax report by business entities has been reduced from several hours to a minute. Before automation, the preparation of a value-added tax report by business entities consisted of manually entering each incoming and outgoing invoice into an Excel spreadsheet. One of the most problematic issues is the large amount of time it takes, as well as the high probability of making errors. The above situation also creates problems with the analysis and verification of the second tax authorities. Tax authorities check the correctness and completeness of the double-entry of invoices recorded in the value-added tax report by business entities. In cases where value added tax reports are re-filed by business entities, all primary documents are submitted to the tax authority for analysis. This used to take a lot of time and money. Currently, these analyses are carried out in a few minutes. Moreover, the system automatically generates data accordingly.

Today, the intervention of state bodies, in particular tax authorities, in the economic activities of taxpayers has been sharply reduced. Such changes are certainly unimaginable without automated digital technologies. Candidates for auditing taxpayers' economic activities are initially determined based on their submitted reports, formalized primary documents, and information received from various ministries and departments, based on more than 400 criteria. Initially, the taxpayer is sent a warning with the indicated shortcomings to eliminate them, giving them a ten-day period. If the taxpayer still fails to eliminate the indicated shortcomings, an audit is then scheduled.

### **Conclusions and suggestions.**

In conclusion, with the introduction of the electronic invoice system, it can be seen that the level of transparency of business has increased. In addition, the period for rejecting electronic invoices for highly liquid transactions has been reduced, which serves to reduce the hidden economy in this area. In our country, the level of use of the electronic document management system has also increased sharply during the pandemic. The introduction of information technologies into the tax system of the Republic of Uzbekistan can be explained by the increase in the number of taxpayers and the need to use automated technologies to analyze them. If this procedure is not automated, the amount of value added tax accounted for by taxpayers will be collected from the budget only after it is determined during the audit process, but as a result of automation, double counting of the same amount will be limited.

### **Adabiyotlar/Literatura/Референсе:**

1. Ўзбекистон Республикаси Солиқ кодекси- Тошкент: Ғафур Ғулом нашриёт уйи 2020.- 640 б.
2. Кукарина Юлия Михайловна, Формирование и развитие понятия "электронный документ" в зарубежном и Российском законодательстве, автореферат диссертации на соискание ученой степени кандидата исторических наук, Москва-2004, 32.с.
3. Черватюк Василий Демянович, Модел и алгоритмы хранилища данных электронного архива технической документации и электронного документооборота научно-производственной организации, автореферат диссертации на соискание ученой степени кандидата технических наук, Санкт-Петербург – 2020, 20.с.
4. Кортиков Федор Сергеевич, Разработка комплекса алгоритмов и программ для повышения производительности функционирования электронного документооборота, автореферат диссертации на соискание ученой

- степени кандидата технических наук, Санкт-Петербург-2013, 19 с.
5. Жарков А.А. Система электронного документооборота/ А.А. Жарков// Наука, техника и образование. -2014.- №3(3).- 65-71 бетлар.
  6. Столбов А.П. Организаци электронного документаоборота в здравоохранении/ Столбов А.П.// Врач и информационные технологии.-2007. -№5-33-39 бетлар
  7. Бисултанов Амир Нажмудиевич, Развитие методико-инструментальной базы налогового администрирования условиях цифровизации экономики, автореферат диссертаци на соискание ученой степени кандидата экономических наук, Владикавказ-2019, 26.
  8. Шрэйтэр К.О. Электронный документооборот: возможности и преимущества./К.О.Шрэйтэр// Молодой ученый. 2015.-№2.-с.52-55
  9. Уколов, Виктор Сергеевич, Инструментальные методы экономики в процессах аутентификации электронных документов на основе ортогонального преобразования, автореферат кандидат экономических наук, Москва -2009, 24 с..