Akademik Tarih ve Düşünce Dergisi *Academic Journal of History and Idea*
ISSN: 2148-2292
12 (2) 2025

Araştırma Makalesi | Research Article
Geliş tarihi |Received:15.02.2025
Kabul tarihi |Accepted:10.04.2025
Yayın tarihi
|Published:25.04.2025

Rashad Qardashov

https://orcid.org/0000-0001-6512-3771
Doctor of Philosophy in History, Associate Professor, Faculty of Information and Document Management Department of Library Information Resources Management, Baku State University, Azerbaijan, qardashov@inbox.ru

Jahan Ahmedli

https://orcid.org/0009-0006-9037-2212
Faculty of Information and Document Management Department of Library Information Resources Management, Baku State University, Azerbaijan, jahan.mirzeyeva@mail.ru

Atıf Künyesi | Citation Info

Qardashov, R. & Ahmedli, J. (2025). The Blockchain Technologies and Document Management in Library Environment. *Akademik Tarih ve Düşünce Dergisi, 12* (2), 966-982.

The Blockchain Technologies and Document Management in Library Environment

Abstract

This article explores the application of blockchain technology in the field of document management within libraries. With its high-security features—such as data encryption, decentralization, and immutability—blockchain holds exceptional potential for document management. The article discusses how blockchain can ensure document security in libraries, address issues related to the exchange and storage of electronic documents, and support processes such as archiving and document tracking. Additionally, it presents insights into how the use of this technology could enhance the digital infrastructure of libraries

and outlines future prospects. The article offers detailed and practical recommendations on the implementation of blockchain technology for library staff, information professionals, and those working in the field of document management.

Keywords: *Blockchain technology, library environment, document management, electronic documents*

Kütüphane Ortamında Blokzinciri Teknolojileri ve Belge Yönetimi

Öz

Bu makale, blokzinciri teknolojisinin kütüphanelerdeki belge yönetimi alanındaki uygulamalarını araştırmaktadır. Veri şifreleme, merkezsizleştirme ve değişmezlik gibi yüksek güvenlik özellikleriyle blok zinciri, belge yönetimi için olağanüstü bir potansiyele sahiptir. Makalede, blok zincirinin kütüphanelerde belge güvenliğini nasıl sağlayabileceği, elektronik belgelerin değişimi ve depolanması ile ilgili sorunları nasıl ele alabileceği ve arşivleme ve belge takibi gibi süreçleri nasıl destekleyebileceği tartışılmaktadır. Ayrıca, bu teknolojinin kullanımının kütüphanelerin dijital altyapısını nasıl geliştirebileceğine dair içgörüler sunmakta ve gelecekteki beklentileri ana hatlarıyla belirtmektedir. Makale, kütüphane personeli, bilgi uzmanları ve belge yönetimi alanında çalışanlar için blok zinciri teknolojisinin uygulanmasına ilişkin ayrıntılı ve pratik öneriler sunmaktadır.

Anahtar Kelimeler: *Blokzinciri Teknolojisi, Kütüphane Ortamı, Belge Yönetimi, Elektronik Belgeler*

Introduction

Blockchain technology, which is not controlled by any central authority and ensures the secure sharing of data over a network, is becoming increasingly widespread in today's world. Its potential is particularly significant in the fields of information management and document management. Libraries play a crucial role in managing, preserving, and providing access to documents, and the application of blockchain technology in this sector can make their operations more secure, transparent, and efficient. This article examines the impact of blockchain technology on the development of document management in libraries, focusing especially on its applications in securing digital documents, ensuring their traceability, and supporting archival processes.

1. Problem Statement

One of the major challenges faced by libraries in the field of document management is ensuring the security and integrity of documents. Libraries encounter various difficulties in managing digital information resources, particularly concerning the loss, alteration, and lack of transparency of documents. Blockchain technology has the potential to address these issues. It can

make the document management process transparent, traceable, and immutable. Therefore, the purpose of this article is to explore how blockchain technology can be applied in libraries and to explain its potential benefits in the field of document management.

2. Research Methodology

The methods used in this article include theoretical analysis, a review of existing scientific literature, examination of international application examples, and an analysis of experiences related to the application of blockchain technology in library document management. The main areas analyzed are document security, archiving, transparency, and electronic document exchange. This methodology enables an understanding of the advantages and disadvantages of blockchain technology in the field of library document management and allows for an assessment of its development prospects.

3. Explanation of the Issue

As we know, the application of blockchain technology in libraries can be used in several important areas:

**Document Security and Transparency*

Blockchain records every document transaction, and these transactions cannot be altered. This preserves the integrity of documents and prevents data manipulation (Ismayilov & Bayramova, 2022b).

*It ensures that document exchange and storage in libraries are conducted in a more secure and transparent manner.

**Electronic Document Management*

Libraries are interested in applying new technologies in the management and exchange of electronic documents. Blockchain ensures the secure transfer and storage of documents, while also enabling the tracking of the document's history (Balginova, Maydangalieva, Satygalieva & Mahammadli, 2018).

**Digital Archiving*

Blockchain technology can make digital archiving of documents more effective and secure (Heydar, 2023). Tracking each stage of a document's history is possible through blockchain, which helps in preserving the document.

**Decentralization*

Blockchain operates on a decentralized network. For libraries, this eliminates the need for a central server, ensuring that data is not centralized and is less susceptible to risks (Ismayilov, Ismayilov, & Mammadova, 2019).

Document Security and Transparency:

Document security and transparency are among the most critical issues for libraries and other information management organizations. Protecting electronic documents from the risk of loss or alteration, as well as ensuring transparency in document operations, is crucial (Kazimi & Balayeva, 2024). Blockchain technology has incredible potential in this area because, in addition to ensuring document security, it also addresses issues of tracking and transparency.

Document Security

Blockchain technology offers exceptional advantages in the protection of data and resistance to manipulation. The application of blockchain in libraries and other document management organizations provides the following features to ensure the security of electronic documents:

**Encryption and Data Tracking*

The blockchain network encrypts each document transaction, and only designated participants can view these transactions. (Ismayilov, 2022). This preserves the accuracy and integrity of the document and prevents unauthorized changes.

**Immutability*

Each transaction on the blockchain is recorded, and new data is not overwritten on previous data but is added as a new block to the network. This ensures the document's integrity and immutability (Ismayilov & Khalafova, 2023). Therefore, any changes to a document will be recorded and cannot be reversed.

**Decentralization*

Blockchain operates on a decentralized system, which is one of its greatest advantages. If a centralized server is targeted by hackers, all data could be compromised. However, in a blockchain network, copies of data are stored in various locations, which strengthens the protection of the document.

**Additional Security Layers*

Systems using blockchain technology can implement additional security layers, such as two-factor authentication (2FA), biometrics, and other security methods (İsmayılov, Mahammadli &

Gasimli, 2023a). These additional layers make user identification and document transaction tracking more secure.

Document Transparency

Blockchain technology allows for transparent tracking of document transactions. This feature helps libraries to ensure transparency in document management (Qasımlı & Məhəmmədli, 2024b). Below are the contributions of blockchain technology to the transparency of document operations:

**Transaction Tracking*

Every transaction in the blockchain network is recorded, and this data is open to all network participants. Libraries can track when a document was created, who modified it, when it was read or used (Ismayilov & Khalafova, 2022a). This transparency ensures the accuracy and reliability of the document.

**Audit Control*

The transparency of blockchain transactions enables auditors and other stakeholders to easily verify document operations (Oqlu, Nadir & Tofiq, 2023). This creates a great opportunity for independent auditing of document operations.

**Multifaceted Data Control*

In libraries and other document management organizations, recording any changes to data or documents in an open manner allows users and administrators to have control over information (Tofiq, Oqlu & Kazimi, 2022). This provides more transparency compared to centralized systems.

**Real-Time Tracking.* Data on the blockchain network can be tracked in real-time (Ismayilov, Mahammadli & Khudiyeva, 2022). This further enhances the transparency of document transactions and ensures that each transaction is recorded as it occurs.

4. Application of Blockchain Technology in Libraries

The application of blockchain technology in libraries provides significant benefits in the management, exchange, and storage of electronic documents:

**Digital Archiving*

Blockchain ensures the secure storage and protection of electronic documents (Ismayilov & Aliyeva, 2023). Using blockchain for digital archiving, the history of each document is recorded and made immutable.

**Document Protection*

Blockchain ensures that data is accessible only by authorized users. This protects the documents in libraries and prevents unauthorized operations.

**Copyright and User Permissions*

In libraries, blockchain technology allows for the tracking of document copyrights and the management of user permissions. This prevents unauthorized use or sharing of documents.

The benefits of blockchain technology in document security and transparency are immense for libraries (Qasımlı & Məhəmmədli, 2024a). It ensures document protection, prevents manipulation, allows for transaction tracking, and guarantees that all document operations are transparent and open (Kazimi & Agamirzaev, 2021). When implemented, blockchain will provide libraries with higher security and transparency in document management processes, ushering in a new era in information management.

Electronic Document Management (EDM)

Electronic Document Management (EDM) is an approach that allows organizations and institutions to accept, store, search, exchange, archive, and manage documents in electronic format systematically. EDM offers more efficient and secure methods for processing and storing information (Ismayilov & Khalafova, 2022b). The application of blockchain technology in this area creates new opportunities by ensuring the security, accessibility, and immutability of documents.

Key Elements of Electronic Document Management

**Document Creation and Collection.* Electronic document management begins with the initial creation and collection of documents within an organization. In this phase, data is collected from various sources (e-mail, document scanning, digital forms) and converted into digital format.

**Document Registration and Management.* Electronic documents are entered into relevant databases, and various tags (metadata) are applied to classify them (Ismayılov & Khudiyeva, 2023). This process is essential for easy retrieval and tracking of documents. At this stage, important information such as the content of the document, creation date, author, and other relevant data is recorded.

**Document Storage and Archiving*

Electronic documents are stored for a specific period and then archived. Archiving ensures the long-term preservation of documents. The application of blockchain technology in this phase ensures the immutability of documents.

**Document Search and Use*

Electronic document management systems have powerful search tools that enable users to quickly find and use specific documents (Oqlu, K., 2021). Using metadata and keywords, documents can be retrieved quickly.

**Document Sharing and Processing*

Sharing and processing of electronic documents plays a crucial role in collaborative work among various users. This includes shared use of documents, defining permissions, and recording changes.

**Document Security.* Security measures are essential for electronic document management (Kazimi, Ismaylov & Rzayeva, 2023). Various encryption and authentication methods are applied to ensure that documents are accessible only to specific users.

**Document Deletion*

The process of deleting or destroying electronic documents occurs when a document is no longer needed or when its retention is no longer legally required.

Application of Blockchain Technology in Electronic Document Management

Blockchain technology offers significant benefits in the field of electronic document management (Nadir & Sevda, 2022). Its application increases the reliability of electronic document systems and eliminates the risks of document tampering and manipulation.

**Security and Transparency*

Documents recorded on the blockchain are immutable. This preserves the integrity of the document and protects it from manipulation. Every document transaction (addition, modification, deletion) is recorded, and this data cannot be altered. As a result, users and administrators can track the document's history and detect any manipulations.

**Data Tracking*

Blockchain allows for the tracking of each document over time. This shows who modified the document, to whom it was sent, and on what date it was processed. In electronic document management systems, such transparency greatly helps users track document operations.

Permission Management

Blockchain fully manages who can access the document and under what permissions (İsmayılov & Məhəmmədli, 2024). For example, each document created on the blockchain can have specific rights assigned, determining who can open, read, or modify the document. This further enhances the security of the document.

Audit and Reporting

Every transaction on the blockchain network is recorded, and each of these transactions is transparently visible (Kushzhanov & Dashqin, M. (2019a). This ensures the complete traceability of any activity related to document creation, modification, analysis, or archiving. As a result, powerful audit and reporting capabilities emerge for electronic document management systems.

Digital Signature and Authenticity

Blockchain technology ensures the validation of documents with a digital signature (Ismayilov, Mahammadli & Gasimli, 2023b). Each document transaction is confirmed on the blockchain network, which enhances the authenticity of the document. This is particularly important in legal and property rights matters.

Thus, electronic document management provides organizations with a powerful approach to digitally manage their documents. The application of blockchain technology in this field ensures document security and transparency while facilitating the tracking of document transactions. (Muhammadli, 2023). Blockchain is revolutionizing electronic document management systems, making them more reliable, secure, and transparent, marking the beginning of a new era in information management.

Digital Archiving

Digital archiving is the process of converting information and documents into digital format for long-term storage and protection. This involves digitizing traditional paper documents and storing them in electronic format. Digital archiving ensures the protection of data, facilitates

searchability, and makes documents more accessible. Modern technologies applied in this field provide effective tools for securely storing and retrieving information.

Principles and Benefits of Digital Archiving

Long-Term Storage and Protection

Digital archiving offers appropriate methods for the long-term storage and protection of information. Documents stored in digital format take up less space and require fewer resources compared to paper documents. At the same time, they are protected from physical damage, loss, and natural disasters.

Variety of Information Types

Digital archiving allows the storage of various types of documents, including text, images, video, audio, and other media formats. This ensures a wide variety of information types and makes it convenient for different users.

Security. Digital archiving systems ensure the security of data. Encryption of digital documents, setting user permissions, and data backup are essential measures to protect information. These systems also prevent data corruption, loss, and tampering.

Search and Accessibility

Digital archiving enables users to quickly and easily access information. Archived documents can be searched based on specific parameters (keywords, date, author, document type, etc.). This speeds up the process of finding and retrieving information.

Processing and Sharing

Documents stored in electronic format can be more easily processed and shared by different users (Karabalina, Maydangalieva, Satygalieva, Ahmetalina & Mahammadli, 2018). Additionally, it is possible to edit, discuss, and update documents. These features are beneficial for business collaboration.

Productivity and Efficiency

With digital archiving, organizations spend less time organizing, managing, and retrieving documents. Compared to paper documents, digital systems are faster and more efficient. Additionally, digital systems require less physical space for document backup and archiving.

Digital Archiving Technologies

Optical Character Recognition (OCR)

OCR technology is used to convert paper documents into digital format. This technology recognizes the text in paper documents and converts it into searchable digital text. OCR is an essential tool for digital archiving because it enables the conversion of paper documents into electronic format.

Metadata and Tagging

Metadata (information about the document) is applied for proper organization and searching of digital documents. This includes information such as the document's title, author, creation date, and other important details. Tagging and metadata application facilitate the search of information and ensure more efficient document management.

Encryption and Security Systems

Modern encryption methods and security systems are applied to ensure the safety of documents in digital archives. These systems ensure that documents are accessed only by authorized users and help in securely storing information.

Digital Signature and Document Validity

Digital signature technology is used to ensure the validity of digital documents. (Kazimi, Abdullayeva & Ismayilov, 2020). A digital signature authenticates the document's accuracy and authorship. This ensures the immutability of the document and makes it legally valid.

Challenges and Problems of Digital Archiving

Technology and Infrastructure. The technologies and infrastructure required for digital archiving can sometimes be costly for organizations. Providing affordable technological equipment and software is essential.

Long-Term Data Storage

Digital data requires appropriate environments and technologies for long-term storage. Technological advancements can create problems such as the inability to read data in older formats. The issue of data becoming obsolete and unreadable over time is one of the main challenges faced by digital archiving.

Data Security and Protection

The security of digital archives, especially concerning network attacks and data leaks, can cause serious concerns. Additional security measures must be taken to protect the data.

Legislation and Regulation

Digital archiving may raise issues related to legal requirements and regulations. For instance, some countries may have specific laws regarding digital archiving. These laws cover regulations on the long-term storage of digital documents and privacy issues.

Application of Blockchain Technology in Digital Archiving

Blockchain technology offers an approach that enhances the reliability and security of digital archiving. Documents stored on the blockchain cannot be altered, and every operation is recorded, ensuring the integrity and accuracy of the document. This technology adds transparency, reliability, and security to digital archiving systems, as well as preventing data manipulation and loss.

In summary, digital archiving requires the application of modern technologies to ensure the long-term storage and preservation of data. It provides an approach that ensures the security, accessibility, and reliability of organizational data. With the development of digital archiving, the use of blockchain technology increases the security of documents and ensures their immutability. This approach will ensure that digital archiving systems are stronger and more reliable in the future.

Decentralization is the process or result of distributing management and power structures to various parts or parties, rather than centralizing them. Decentralization is primarily used in government administration, the economy, and technology (especially in blockchain technology and digital environments). In centralized systems, power and decision-making processes are concentrated in the hands of a central body, whereas decentralization distributes this power to several places or participants.

5. Principles and Key Features of Decentralization

**Opposite to Centralization*

Decentralization stands in contrast to centralization (Kazimi & Mahammadli, 2021). In centralized systems, all decision-making and power are tied to a central authority. In decentralization, this power is distributed to several different points or participants, allowing each part to operate more independently.

**Involvement of Multiple Participants in Decision Making*

Decentralization involves more decision-makers and participants in the process. It enables regions, organizations, or individuals to have greater initiative and operational freedom.

**Independent and Decentralized Resources*

Decentralization facilitates the independent management of resources, data, and operations across various locations or parties. This increases the system's flexibility and speed, while also allowing for risk distribution.

**Transparency and Security*

Decentralization enhances transparency because data and operations are distributed across different parts, and each participant can track the processes (Kenzhebayeva, Urmurzina & Mahammadli, 2018). Blockchain technology is an example of this, as it ensures that data sharing and management occur equally among participants, with each transaction recorded transparently.

**Reduced Decision-Making Time*

Decentralization can accelerate decision-making because each participant can make decisions locally without needing approval or permission from a central authority.

Areas of Decentralization Application

**Government and Administration*

In public administration, decentralization refers to the delegation of powers from the central government to local governments or regional bodies. This allows for more effective decision-making based on local specifics and reduces the burden on the central government.

**Economy*

Decentralization is also applied in the economic sphere, particularly to enable various enterprises and organizations to make strategic decisions independently. This ensures more agile markets and greater competition.

**Blockchain Technology*

The decentralized nature of blockchain technology is based on decentralization principles. Blockchain ensures that operations and data are managed through a distributed network without relying on a central authority or party(Məhəmmədli, 2024). This guarantees secure, transparent, and immutable execution of financial transactions and other data.

Education and Science

In the fields of education and science, decentralization allows educational institutions to operate independently and adapt the teaching process to local conditions. At the same time, scientific research can be conducted independently of central authorities, promoting collaboration among various universities and research institutes.

Decentralization in Blockchain and Digital Archiving

The application of blockchain technology in digital archiving is one of the best examples of decentralization. This technology enables the storage, management, and protection of data in a decentralized manner. When a blockchain network is widely distributed, each participant validates the data as part of the network, and this data cannot be altered by any central authority.

Data Security and Protection

In a blockchain network, data is duplicated and stored in multiple locations, which prevents data loss and ensures security.

Data Transparency

Information archived through blockchain can be monitored by all network participants, and every transaction is recorded. (Khalafova & Ismailov, 2024). This enhances transparency and makes it nearly impossible to alter or falsify the data.

Source and Authenticity

Once data is recorded on a blockchain network, the origin of each document and transaction is established and becomes immutable. This guarantees the authenticity and reliability of the documents.

5. Decenalization and Challenges

**Infrastructure Issues*

The decentralization process requires advanced technological infrastructure and numerous resources. Additionally, since each participant is part of the network, not everyone has equal power or capacity, leading to potential imbalances.

**Coordination and Control Difficulties*

Because decentralization involves many participants in the decision-making process, coordination and oversight become more complex. This can lead to delays in decision-making and, at times, inconsistencies.

**Standardization and Integration Problems*

Decentralization also raises issues around the integration and standardization of different systems and technologies (Kushzhanov & Dashgin, 2019a). While this is relatively easy in centralized systems, decentralized systems may face challenges due to varying standards and procedures.

In conclusion, decentralization forms the foundation of modern approaches in management and data storage. It enables the creation of more transparent, flexible, and reliable systems. (Mahammadi, 2024). Blockchain technology further enhances this process by introducing a new approach to document preservation and protection. Decentralization is emerging as a growing trend in both organizational structures and digital archiving systems, and it is expected to see even broader applications in the future.

Conclusion

Decentralization and blockchain technology have led to significant revolutionary changes in the field of document management. These approaches bring transparency, security, and flexibility to document workflows, especially in digital archiving and electronic document management. Blockchain technology enhances document security and ensures the immutability of operations by enabling decentralized storage and management of data. The application of decentralization in digital archiving and document management plays a crucial role in enhancing the protection, traceability, and transparency of information. This is particularly invaluable for managing and storing critical data such as legal and financial documents, government records, and scientific research. Blockchain increases the reliability of data sources, ensures data security, and enables transparent tracking of transactions.

However, there are also several challenges associated with the implementation of decentralization (Kushzhanov & Mahammadli, 2019b). These include the need to establish advanced technological infrastructure, equitable distribution of resources, coordination and supervision among network participants, and the integration and harmonization of various standards and protocols.

In the future, the development of blockchain technology and decentralization will transform document management and document workflows into more independent, flexible, and reliable systems (Mahamadli, 2018). These approaches will mark the beginning of a new era in document management at both organizational and technological levels. Decentralization will play a key role globally in ensuring document security, increasing data transparency, and enhancing reliability.

Blockchain technology also offers more effective solutions for document management and security in libraries. It ensures the authenticity, immutability, and traceability of documents. The application of blockchain in libraries can enhance the transparency of document exchange and

represents an important step toward a modern digital infrastructure. In the future, the broader use of this technology will make library information management systems more reliable and efficient.

References

Balginova, K. M., Maydangalieva, Z. A., Satygalieva, G. B., & Mahammadli, D. (2018). The digital Kazakhstan. The developmemt of human resourses in education. *«Вестник НАН РК»*, (6), 82-94.

Heydar, M. D. (2023). Library and information infrastructure of the regions of the Azerbaijan Republic: its development, current state and ways of modernization.(Experience of the Sheki-Zakatala Economic Region). *Technium Soc. Sci. J.*, *39*, 782.

Ismayilov, K., Ismayilov, N., & Mammadova, V. (2019). Library information services in academic libraries of Azerbaijan: a comparative study. *Library Management*, *40*(6/7), 461-477.

Ismayilov, N. I. (2022). Library Resources: Allocation and Usage Problems (Comparative Analysis of the World and Regional Practice). *Scientific and Theoretical Almanac Grani, 26*(1), 38-43.

Ismayilov, N. I., & Khalafova, S. A. (2023). On the typology of document-information resources in the field of economy. *Universidad Y Sociedad, 15*(6), 224-232.

İsmayılov, N. İ., Mahammadli, D., & Gasimli, H. H. (2023a). Organization, development and current situation of the document flow on tourism in the regions (based on the example of the Shaki-Zagatala economic region). *Scientific and Theoretical Almanac Grani, 2* (26), 122-127.

Ismayilov, N. I., Mahammadli, D., & Khudiyeva, V. (2022). Methods and Means of Information Search in the Digital Environment. Scientific and Theoretical Almanac Grani, 25(5), 31-34.

Ismayilov, N., & Aliyeva, G. (2023). Creation and Formation of Document Flow in the Field of Library-Bibliography (on the Basis of Tazkiras). *Scientific and Theoretical Almanac Grani, 26* (3), 165-170.

Ismayilov, N., & Bayramova, I. (2022b). *Methodology of Research and Study of Document Flow in the Field of Tourism (Based on Experience from Local Libraries). Grani, 25* (3), 70-76.

Ismayilov, N., & Khalafova, S. (2022b). Library Sites that Provide Information to Users (Based on Domestic and Foreign Library Experience). Науково-теоретичний альманах Грані, 25(2), 22-28.

Ismayılov, N., & Khudiyeva, V. (2023). Conducting training and research, problem solving, creative thinking. *Akademik Tarih ve Düşünce Dergisi, 10* (2), 643-649.

İsmayılov, N., & Məhəmmədli, D. (2024). Qərbi Azərbaycan Tarixinə Dair Sənəd Axınının Təşəkkülü və İnkişafı. *Akademik Tarih ve Düşünce Dergisi, 11* (6), 4483-4496.

Ismayilov, N., Mahammadli, D., & Gasimli, H. (2023b). Characteristics of the LibraryInformation Service in the Republic of Azerbaijan in A Poly-Ethnic Condition (based on the example of Sheki-Zagatala economic region). *Akademik Tarih ve Düşünce Dergisi, 10* (3), 878- 890.

Karabalina, A. A., Maydangalieva, Z. A., Satygalieva, G. B., Ahmetalina, G. A., & Mahammadli, D. (2018). Family Pattern as Key Factor of Primary School Chidren Academic Perfomance. *Bulletin of the National Academy of Sciences of the Republic of Kazakhstan*, (6), 58-66. https://doi.org/10.32014/2018.2518-1467.28

Kazimi, P. F. O., & Agamirzaev, O. (2021). Social functions of modern library-information institutions (Problems of library management). *Technium Soc. Sci.* J., 26, 883.

Kazimi, P., & Balayeva, E. (2024). Ethnocultural Description of the Persians (Socio-historical analysis). *Akademik Tarih ve Düşünce Dergisi, 11*(1), 193-199.

Kazimi, P., Abdullayeva, A., & Ismayilov, N. (2020). Scientometric analysis of document flow in library science of azerbaijan (2014-2018). *Norwegian journal of development of the international science,* (45-2), 66-70.

Kazimi, P., Ismaylov, N., & Rzayeva, Z. (2023). Bilya vytokiv diyal′nosti Azerbaydzhans′koyi naukovoyi biblioteky (zhyttya, prysvyachene kul′turi). *Naukovo-teoretychnyy al'manakh Hrani, 26* (4), 125-129.

Kazimi, P.F.O. & Mahammadli, D.H.O. (2021). Dijital alanın kullanımıyla kütüphane hizmetlerinde modern yönler (Bölgesel ve endüstriyel bilgi hizmetinin güvenlik sorunları).*Technium Soc. Sci.* J.,25, 819. https://doi.org/10.32014/2019.2518-1467.40

Kenzhebayeva, D. K., Urmurzina, B. G., & Mahammadli, D. (2018). The modern youth values in Kazakhstan. News of the National Academy of Sciences of the Republic of Kazakhstan. *Series of social and human sciences, 6* (322), 51-66. https://doi.org/10.32014/2018.2224-5294.35

Khalafova, S. & Ismailov, N. (2024). Natsional'naya bibliografiya v kriptograficheskoy informatsionnoy sisteme, nablyudayemaya korrespondentami. *Zhurnal yestestvennykh teoreticheskikh issledovaniy, 27* (4), 32-36. (In Russian).

Kushzhanov, N. V., & Dashgin, M. (2019a). Tsifrovaya povestka YEAES. *Bulletin of the National Academy of Sciences of the Republic of Kazakhstan,* (2-S), 55-61. (In Russian).

Kushzhanov, N. V., & Dashqin, M. (2019a). The Digital Agenda of Eaue. *Вестник НАН РК*, (2), 55-61.

Kushzhanov, N. V., & Mahammadli, D. (2019b). The digital transformation of the oil and gas sector in kazakhstan: priorities and problems. *News Natl Acad Sci Repub Kazakhstan, 3* (435), 203-212.

Mahamadli, D.G. (2018). Analiz bibliotekhnicheskoy organizatsii Sovetsko-gosudarstvennogo ekonomicheskogo rayona Azerbaydzhana. *Tolstoy gosudarstvennyy universitet*, (2), 17-21. (In Russian). https://doi.org/10.18323/2221-5689-2018-2-17-21

Mahammadi, D. H. (2024). Issues of Legal, Scientific, Theoretical, Methodological and Practical Significance as an Important Component of the Informatization of the Library Infrastructure of the Republic (Strategy For The Development of Libraries in the Regions of Azerbaijan). *Akademik Tarih ve Düşünce Dergisi, 11* (1), 611-619.

Məhəmmədli, D. (2024). Kitabxana Saytlarının Funksiyaları və Onların Təsnifatı. *Akademik Tarih ve Düşünce Dergisi, 11* (6), 4708-4717.

Muhammadli, D. G. (2023). Primeneniye informatsionno-kommunikatsionnykh tekhnologiy v bibliotechnom dele Sheki-Zaratalinskogo ekonomicheskogo rayona Azerbaydzhanskoy Respubliki. Novyye formy: istoriya, sotsiologiya, politika i filosofiya Doklad avtora na LXXVI. *Zapiska po materialam Mezhdistsiplinarnoy vrachebno-prakticheskoy konferentsii, 5* (76), 12-15.(In Russian).

Nadir, I., & Sevda, K. (2022). General Characteristics of Local Lore Documental Network Resources of the Libraries of Azerbaijan (Based on library collection). *Technium Soc. Sci.* J., 33, 628.

Oqlu, K. P. F. (2021). Conflict of Relevance and Reliability of İnformation and the Global Network. *Trends in Humanities and Social Sciences, 1*(1), 1-2.

Oqlu, K. P. F., Nadir, I., & Tofiq, R. Z. (2023). At the Origins of Azerbaijani Scientific Library Activity (a Life Dedicated to Culture). *GRANI, 26* (4) 125-129.

Qasımlı, H., & Məhəmmədli, D. (2024a). Turizm sahəsi üzrə "İnformasiya tələbatı" konsepsiyası. *Akademik Tarih ve Düşünce Dergisi, 11*(6), 4588-4595.

Qasımlı, H., & Məhəmmədli, D. (2024b). Biblioqrafik Xidmət Kitabxana-İnformasiya Mərkəzlərində Turizmə Dair Sənəd Axınının Müəyyənləşdirilməsinin Başlıca Komponenti Kimi. *Akademik Tarih ve Düşünce Dergisi, 11*(6), 4718-4726.

Tofiq, R. Z., Oqlu, M. M. A., & Kazimi, P. F. O. (2022). Some questions of the application of library management. *Technium Soc. Sci.* J., 37, 774.

Ismayilov, N. I., & Khalafova, S. A. (2022a). The role of digital marketing in the management of library information resources. Academic review, 2(57), 194-202.