



Oruj Guliyev

<https://orcid.org/0000-0002-2966-1800>

Deputy Director for Digitalization, Innovation, and Electronic Services at the Institute of Manuscripts of Central Scientific Library of ANAS, Doctor of Philosophy in History, Azerbaijan, oruj\_guliev@mail.ru

#### Atıf Künyesi | Citation Info

Guliyev, O. (2025). The Impact of Urban Level on the Placement of Library Information Resources. *Akademik Tarih ve Düşünce Dergisi*, 12 (2), 177-186.

## The Impact of Urban Level on the Placement of Library Information Resources

### Abstract

This article examines the impact of urban-level placement of library information resources and the interaction between urbanization and library systems. The process of urbanization influences the formation and development of library infrastructure by causing socio-economic and demographic changes. The article analyzes new approaches related to urban planning, the accessibility of information resources, and the optimization of library networks. At the same time, adaptive models of library systems are presented within the framework of digital transformation and the smart city concept. The findings of the study propose strategic recommendations for enhancing the efficiency of library services and strengthening the social functions of urban libraries against the backdrop of urbanization.

**Keywords:** Urbanization, Library Systems, Information Resources, Urban Planning, Socio-Economic Factors

## Kentsel Düzeyin Kütüphane Bilgi Kaynaklarının Yerleşimine Etkisi

### Öz

Bu makale, kütüphane bilgi kaynaklarının kentsel düzeyde yerleşiminin etkisini ve kentleşme ile kütüphane sistemleri arasındaki etkileşimi incelemektedir. Kentleşme süreci, sosyo-ekonomik ve demografik değişimlere neden olarak kütüphane altyapısının oluşumunu ve gelişimini etkilemektedir. Makale, kentsel planlama, bilgi kaynaklarının erişilebilirliği ve kütüphane ağlarının optimizasyonu ile ilgili yeni yaklaşımları analiz etmektedir. Aynı zamanda, dijital dönüşüm ve akıllı şehir kavramı



*çerçevesinde kütüphane sistemlerinin uyarlanabilir modelleri sunulmaktadır. Çalışmanın bulguları, kütüphane hizmetlerinin verimliliğini artırmak ve kentleşme zemininde kent kütüphanelerinin sosyal işlevlerini güçlendirmek için stratejik öneriler sunmaktadır.*

**Anahtar Kelimeler:** *Kentleşme, Kütüphane Sistemleri, Bilgi Kaynakları, Kentsel Planlama, Sosyo-Ekonomik Faktörler*

## **Introduction**

In the modern era, the processes of urbanization significantly impact all areas of society, including the organization and development of library systems. The rapid growth of cities, population density, technological innovations, and socio-economic changes necessitate the reconstruction and optimization of library infrastructure. Libraries function not only as sources of information but also as social, cultural, and educational centers, making their integration with urban planning of great scientific and practical importance. This study aims to analyze the factors affecting the placement of library information resources against the backdrop of urbanization and the interaction of library systems with urban development. Urbanization is one of the key factors shaping the socio-economic development of modern societies. The rapid expansion of cities and the increase in population density raise the demand for information resources and require new approaches for the reorganization of library systems. Urbanization is a demographic and socio-economic process related to the migration of people from rural areas to cities. As a result of this process, issues of access to information resources, knowledge production, and dissemination become prominent in the urban environment. In modern cities, information needs are met not only through traditional library services but also through digital information resources, online library systems, and open data bases.

Libraries not only play the role of information centers in urban environments but also function as public spaces (Muhammadli, 2023). The placement of libraries should be planned in connection with urban infrastructure, considering transport accessibility, technological capabilities, and social integration. One of the main objectives of urban planning is to effectively place social services, including library infrastructures, according to the population's needs. This process is determined by various factors:

### **1. The relationship between urban planning and library infrastructure**

Considering libraries in urban planning ensures their accessibility, quality of service, and placement according to user requirements. Establishing library networks in strategic locations within cities expands access to information resources (Kushzhanov & Mahammadli, 2019).

## **2. Population density and accessibility of library resources**

In densely populated urban areas, demand for library services increases, requiring equitable distribution of information resources and the implementation of new library models. Conversely, in less populated areas of the city, mobility and the use of digital technologies are crucial for optimizing library services (Gizi, 2021).

## **3. Optimal placement models of library networks within the city**

There are three main models for the placement of libraries within the city:

1. Centralized model: Placing main libraries in strategic centers of the city (Kenzhebayeva, Urmurzina & Mahammadli, 2018).
2. Network model: Establishing branch libraries in different areas;
3. Mobile and virtual model: Developing digital library platforms and implementing mobile library services.

## **4. The role of digital information resources in urban libraries**

Digital technologies are transforming the operations of libraries, ensuring that traditional information resources are accessible through the internet and electronic library databases. This allows urban residents to meet their information needs more flexibly and effectively (Ismayilov & Sadigova, 2022).

The effective functioning of urban libraries is closely linked to the development of the socio-economic environment. Libraries not only provide information services but also become crucial components of social and cultural development. Investments in library infrastructure and the level of funding are directly related to the overall development of the urban economy. In cities with a strong economy, library services are equipped with modern technologies and serve a wide population segment (Mahamadli, 2018). The effectiveness of urban libraries depends on demographic structure, age groups, and information needs. In cities with a young and active workforce, there is an increasing demand for digital library services, while traditional library formats remain significant for older populations. Libraries are not just information centers; they are also platforms that strengthen social and cultural integration. They increase knowledge sharing among community members, support educational and research activities, and serve as spaces that bring together various social groups (Qasimli & Məhəmmədli, 2024a). Modern urbanization processes require the development of library systems with new models that align with the demands of the information society. The rapid growth of cities, the expansion of digital technologies, and the transformation of social life make it essential for libraries to operate not only as information centers but also as cultural and social platforms. In line with

these trends, Azerbaijan is taking significant steps to renew its national library system and benefit from international experience (Məhəmmədli, 2024).

### **5. The smart city concept and the digitization of library services**

The widespread application of digital technologies improves the quality of library services. The digitization of libraries within the "Smart City" concept, artificial intelligence-based search systems, virtual library services, and mobile applications ensure the convenience of readers. Steps are also being taken in this direction in Azerbaijan. For example, the Azerbaijan National Library is creating digital archives and making its collections accessible through online catalog systems (Qasımlı & Məhəmmədli, 2024b).

### **6. Optimization of libraries through Geographic Information Systems (GIS)**

Optimal placement of library networks through Geographic Information Systems (GIS) can ensure more effective use of these services by the urban population. The placement of libraries in accordance with population density and the geographical analysis of services could be a significant development direction in Azerbaijan (Mahammadi, 2024).

### **7. Application of modular and mobile library models in the urban environment**

Urbanization demands the creation of modern library models. Modular and mobile libraries are one of the effective solutions in this area. The "Mobile Library" project operating in several regions of Azerbaijan is an example of this model (Nadir & Sevda, 2022).

| Adaptive Model               | Features  | Azerbaijan Experience                               |
|------------------------------|---|---|
| Digital Libraries            | Access to electronic resources, online catalogs, e-book databases | Azerbaijan National Library, Republic Youth Library |
| GIS-based Optimization       | Placement of libraries according to population density            | Not fully implemented, potential for development    |
| Modular and Mobile Libraries | Flexible services, open access in cities and regions              | Mobile Library project                              |

### **8. Development of libraries as innovative cultural and educational centers**

Libraries now fulfill not only the function of storing books but also transform into centers of culture and education. The "Open Library" project in Azerbaijan is one of the successful examples in this direction. This model ensures the creation of public reading zones in open spaces and allows the population to freely access information (Kushzhanov & Dashqin, 2019).

### 9. Inclusive and interactive library services for urban communities

Inclusive library services create conditions for every citizen, including those with physical disabilities, to access information equally. In Azerbaijan, a library for visually impaired individuals operates and provides audio books along with books printed in Braille (Kazimi, Abdullayeva & Ismayilov, 2020).

### 10. The functionality of libraries as public spaces and platforms for information exchange

Libraries are becoming places where public dialogue is formed. For example, the Union of Writers of Azerbaijan and libraries regularly organize literary meetings, seminars, and book presentations (Kazimi & Mahammadli, 2021).

| Social Function                    | Implemented Programs                                   | Azerbaijan Experience   |
|------------------------------------|--|---|
| Cultural and educational center    | Seminars, book clubs, scientific conferences           | "Open Library" project  |
| Inclusive and interactive services | Adaptive resources for physically disabled individuals | Library for Visually Impaired Individuals                             |
| Public information platform        | Cultural events, author meetings                       | Events of the National Library and the Union of Writers of Azerbaijan |

Recommendations for the sustainable development of library systems are organized as follows: *\*Strategic proposals for the harmonious development of urbanization and library systems:*

- a) Special attention should be paid to the placement of libraries in urban planning; (Ismayilov, Ismayilov & Mammadova, 2019).
- b) Modern library spaces should be created in new residential complexes. (Ismayilov, Mahammadli & Khudiyeva, 2022).

*\*Investment opportunities from the public and private sectors for the development of library systems:*

- a) Investments in library infrastructure should be made within the framework of public-private partnerships (PPP model) (Ismayilov, 2022).
- b) Collaboration with donor organizations and international projects should be established to expand library services (Ismayilov & Khalafova, 2022).

*\*Management of library resources against the backdrop of digital transformation and urbanization:*

a) The digitization of library collections should be accelerated

(Ismayilov, Mahammadli & Gasimli, 2023a).

b) Artificial intelligence and machine learning technologies should be integrated into library management (Ismayilov & Khalafova, 2023).

| <i>Recommendation</i>                           | <i>Implementation Strategy</i>  | <i>Azerbaijan Perspective</i>                                 |
|---|---|---|
| Integration of urbanization and library systems | Identification of library locations in accordance with urban planning | Libraries are taken into account in new residential complexes |
| Public-private sector collaboration             | Development of financial support and investment models                | Projects with the Ministry of Culture and private funds       |
| Digital transformation                          | Increase of electronic resources, AI-based services                   | National Library and other digital projects                   |

## **Conclusion**

The rapid development of cities and the processes of urbanization have led to fundamental changes in the operations of modern library systems. Urbanization is not only the transformation of physical spaces but is also accompanied by the exchange of information, methods of knowledge acquisition, and the gaining of new functions by public institutions. In this regard, libraries should evolve into institutions that reconcile the social and cultural aspects of urbanization processes and adapt to modern information technologies.

Modern library systems serve as one of the key elements of the knowledge economy in the urban environment. Based on urbanization theories, the growth of urban populations and changes in spatial structure require a redefinition of the functional role of libraries. Urban planning theories, including K. Lynch's urban structure concept and M. Castells' theory of information societies, emphasize the significance of libraries' formation as public spaces. (Sadigova & Mammadova, 2023).

- *The impact of urban structure on information centers:* libraries should be viewed not only as physical buildings but also as part of urban information networks (Balginova. Maydangalieva, Satygalieva & Mahammadli, 2018).

- *Information societies and library models:* digital transformation expands the classic functions of libraries, enabling them to become interactive knowledge centers (Heydar, 2023).

Urban libraries serve to optimize the mechanisms of knowledge acquisition and dissemination within the processes of urbanization. Researchers like S. Zukin and R. Florida assess libraries as "creative spaces" in urban environments. These theories demonstrate that libraries are significant not only as traditional knowledge centers but also as social and intellectual platforms for urban communities.

- *The reconciliation of urbanization and library infrastructure:* The integration of libraries into urban planning ensures the equitable distribution of information resources (Ismayilov & Khudiyeva, 2023).
- *Public spaces and library resources:* Urban libraries gain new social roles as places where public discourses are formed (Ismayilov, Mahammadli & Gasimli, 2023).

In modern urbanization processes, the digitization of libraries expands their role in the information environment. M. McLuhan's media theory and D. Bell's post-industrial society model show that the increase in information flows requires a wider dissemination of knowledge resources.

- *Digital libraries and urbanization:* The development of electronic resources increases the accessibility of library services in the context of urbanization (Ismayilov, Mahammadli, 2024, s.4495).
- *Smart cities and library systems:* The optimization of libraries' digital resources within the "Smart City" concept is theoretically supported (Kenzhebayeva, Urmurzina & Mahammadli, 2018).

The concept of sustainable development requires a deeper theoretical analysis of the relationship between urbanization and library systems. Libraries play a significant role in the formation of knowledge societies within the framework of the UN's Sustainable Development Goals (SDGs). In particular, the social justice theories of J. Rawls and A. Sen emphasize the importance of the inclusive and equitable distribution of library resources.

- *Development of inclusive knowledge systems:* The evolution of libraries as institutions that ensure social equality in urbanization processes is based on theoretical foundations (Karabalina, Maydangalieva, Satygalieva, Ahmetalina & Mahammadli, 2018).

- *State policies and library infrastructure:* Investments by the public and private sectors in the development of library systems are related to urbanization theories(Kushzhanov & Dashgin, 2019).

The interaction between urbanization and library systems demands a functional reformation of them as social and information institutions. The theoretical foundations of this research indicate that: • In the context of urbanization, libraries have become a crucial element of the information society; • Urban planning directly affects the development of library infrastructure; • Digital technologies allow the creation of a flexible and inclusive model of library services.

-Future research should consider the following directions:

-The role of urban libraries in the formation of social capital;

-The impact of digital technologies on library management;

-Urbanization and library policies for reducing information inequality.

The role of libraries in inclusive knowledge exchange and their impact on urban communities.

### References

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

Gizi, S. S. A. (2021). Modern forms and methods of bibliographic activity in libraries. *Архивариус*, 7(2 (56), 12-16.

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.

Ismayilov, N. I., & Sadigova, S. (2022). Synergetic foundations of the methodology of modern bibliography. *Grani Journal*, 26(5), 45-51.



Ismayilov, N. I., Mahammadli, D., & Gasimli, 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*, 26 (2), 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., & Khalafova, S. (2022b). Library Sites that Provide Information to Users (Based on Domestic and Foreign Library Experience). *Науково-теоретичний альманах Грани*, 25(2), 22-28.

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

İsmayilov, 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 Library-Information 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., Satygaliyeva, G. B., Ahmetalina, G. A., & Mahammadli, D. (2018). Family Pattern as Key Factor of Primary School Children Academic Performance. *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., 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.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>

Kushzhanov, N. V., & Dashqin, M. (2019). The Digital Agenda of Eaeu. «Вестник НАН РК», (2), 55-61.

Kushzhanov, N. V., & Mahammadli, D. (2019). 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. *Vektor nauki: Tolstoy gosudarstvennyy universitet*, 2018 (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. <https://doi.org/10.46868/atdd.2024.673>

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

Muhammadli, D. G. (2023). Primeneniye informatsionno-kommunikatsionnykh tekhnologiy v bibliotekhnom dele Sheki-Zaratalinskogo ekonomicheskogo rayona Azerbaydzhanskoj 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.

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.

Sadigova, S., & Mammadova, Z. (2023). Effectiveness of using archival documents in the primary sources of information about the Irevan Khanate. *Akademik Tarih ve Düşünce Dergisi*, 10(6), 2819-2826.