

B.N. Bokayev¹ , Z.T. Torebekova^{1*} ,
 M.D. Nauryzbek² , A.D. Baktiyarov³ 

¹Center for Research and Development of Intellectual Potential, Astana, Kazakhstan

²Center for Analytical Research and Evaluation of the Supreme Audit Chamber
of the Republic of Kazakhstan, Astana, Kazakhstan

³L.N. Gumilyov Eurasian National University, Astana, Kazakhstan

*e-mail: zulfiya1978@mail.ru

LEGAL STATUS AND REGULATORY FRAMEWORK OF DIGITAL NOMADS: AN ANALYSIS IN THE CONTEXT OF GLOBAL MIGRATION

In the context of rapidly accelerating global digitalization and increasing workforce mobility, the phenomenon of digital nomads has gained growing relevance for contemporary legal scholarship and migration policy. Digital nomads constitute a distinct category of remote workers who perform most of their work online while traveling continuously between countries. Despite their expanding numbers and significance in the global economy, the legal regulation of this phenomenon remains fragmented and underexplored.

This study aims to conduct comprehensive analysis of the legal, socio-economic, and institutional aspects related to digital nomads within the context of global migration. Employing methods such as comparative legal analysis, content analysis of international normative documents, and case studies, the research examines practices in several leading countries that have introduced special visa regimes for digital nomads, including Estonia, Portugal, Croatia, and Kazakhstan.

The results highlight key legal challenges: ambiguity in determining tax residency, the absence of unified international standards, and the risk of informal or shadow employment models. Recommendations are offered to harmonize international and domestic legal norms and to establish mechanisms protecting both digital nomads and host states. The findings offer valuable insights for migration policy makers, international organizations, and employers relying on remote work frameworks.

Keywords: digital nomads, remote workers, workforce mobility, visa regulation, migration.

Б.Н. Бокаев¹, З.Т. Торебекова^{1*}, М.Д. Наурызбек², А.Д. Бактияров³

¹Зияткерлік әлеуетті зерттеу және дамыту орталығы, Астана, Қазақстан

²Қазақстан Республикасы Жоғары аудиторлық, палатасының

Зерттеулер, талдау және бағалау орталығы, Астана, Қазақстан

³Л.Н. Гумилев атындағы Еуразия үлттық университеті, Астана, Қазақстан

*e-mail: zulfiya1978@mail.ru

Цифрлық көшпендердің құқықтық мәртебесі мен реттеу тетіктері: жаһандық көші-қон контекстіндегі талдау

Жаһандық цифрландырудың жедел қарқыны және еңбек ресурстарының үтқырлығының артуы жағдайында цифрлық көшпендер феномені заманауи заң ғылымы мен көші-қон саясаты үшін өзекті бола түсүде. Цифрлық көшпендер – жұмыссының басым бөлігін онлайн режимінде орындастырын, елдер арасында үнемі саяхаттайтын шалғайдағы жұмысшылардың ерекше санаты. Жаһандық экономикадағы цифрлық көшпендердің санының өсуі мен маңыздылығына қарамастан, бұл құбылыстық құқықтық реттеу бөлшектелген және толық зерттелмеген күйде қалып отыр.

Бұл зерттеудің мақсаты – жаһандық көші-қон контекстінде цифрлық көшпендерге қатысты құқықтық, әлеуметтік-экономикалық және институционалдық аспекттерді жан-жақты талдау. Салыстырмалы-құқықтық талдау, халықаралық нормативтік құқықтық актілердің мазмұнын талдау және практикалық мысалдар сияқты әдістерді пайдалана отырып, зерттеуде Эстония, Португалия, Хорватия және Қазақстандың қоса алғанда, цифрлық көшпендердің үшін арнайы визалық режимдердің енгізген бірқатар жетекші елдердің тәжірибесі зерттеледі.

Зерттеу нәтижелері негізгі құқықтық мәселелерді ашады: салық резиденттілігін анықтаудағы екіүштылық, біртұтас халықаралық стандарттардың жоқтығы және жұмыспен қамтудың бейресми немесе көленкелі үлгілерінің тәуекелі. Халықаралық және үлттық құқықтық нормаларды

үйлестіру және цифрлық көшпендейлерді де, қабылдаушы мемлекеттерді де қорғау тетіктерін құру бойынша ұсыныстар жасалады. Зерттеу нәтижелері көші-қон саясатын жасаушылар, халықаралық ұйымдар және қашықтан жұмыс істейтін жұмыс берушілер үшін құнды ақпарат береді.

Түйін сөздер: цифрлық көшпендейлер, қашықтағы жұмысшылар, енбек үткірлігі, визальық реттеу, көші-қон.

Б.Н. Бокаев¹, З.Т. Торебекова^{1*}, М.Д. Наурызбек², А.Д. Бактияров³

¹Центр исследований и развития интеллектуального потенциала, Астана, Казахстан

²Центр исследований, анализа и оценки Высшей аудиторской палаты Республики Казахстан, Астана, Казахстан

³Евразийский национальный университет имени Л.Н. Гумилева, Астана, Казахстан

*e-mail: zulfiya1978@mail.ru

Правовой статус и механизмы регулирования цифровых кочевников в контексте глобальной миграции

В условиях стремительно ускоряющейся глобальной цифровизации и повышения мобильности рабочей силы феномен цифровых кочевников приобретает всё большую актуальность для современной юридической науки и миграционной политики. Цифровые кочевники представляют собой особую категорию удалённых работников, которые выполняют большую часть своей работы онлайн, постоянно путешествуя между странами. Несмотря на растущую численность и значимость цифровых кочевников в мировой экономике, правовое регулирование этого явления остаётся фрагментарным и недостаточно изученным.

Целью данного исследования является комплексный анализ правовых, социально-экономических и институциональных аспектов, связанных с цифровыми кочевниками, в контексте глобальной миграции. Используя такие методы, как сравнительно-правовой анализ, контент-анализ международных нормативных документов и практические примеры, исследование изучает практику ряда ведущих стран, внедривших специальные визовые режимы для цифровых кочевников, включая Эстонию, Португалию, Хорватию и Казахстан.

Результаты исследования выявляют ключевые правовые проблемы: неоднозначность определения налогового резидентства, отсутствие единых международных стандартов и риск неформальных или теневых моделей занятости. Предлагаются рекомендации по гармонизации международных и национальных правовых норм и созданию механизмов защиты как цифровых кочевников, так и принимающих государств. Результаты исследования представляют собой ценную информацию для лиц, формирующих миграционную политику, международных организаций и работодателей, использующих удалённую работу.

Ключевые слова: цифровые кочевники, удалённые работники, мобильность рабочей силы, визовое регулирование, миграция.

Introduction

In the 21st century, globalization, digitalization, and labor-market transformation have fostered new forms of workforce mobility. Among the most notable recent phenomena is the rise of digital nomads, professionals who use information and communication technologies to work remotely without a fixed location or physical office. Digital nomads occupy a unique socio-professional space, intersecting tourism, freelancing, and transnational labor migration.

Several factors underscore the importance of examining the legal aspects of digital nomadism. First, according to analytical estimates, the global digital nomad population grew to between 35 and 40 million by 2024. Second, the absence of common international frameworks governing their legal status presents significant legal risks, ranging from taxation and social protection to migration systems

and employer liability for both individuals and host countries. Third, as post-pandemic economies recover, many nations are actively implementing specialized visa regimes to attract this segment of migrants, necessitating a systematic evaluation of associated legal implications (Bahri, 2024).

Academic interest in digital nomads has emerged relatively recently and is concentrated mainly in labor sociology, economics, and cultural geography. However, legal regulation of this group remains underdeveloped, indicating a need for deeper juridical reflection. Legal ambiguity is particularly apparent in areas such as tax residency identification, employers' permanent establishment in host countries, labor-law applicability, visa regulation, and social protection of digital nomads.

This research aims to conceptualize the digital nomad phenomenon within global migration theory and analyze the legal regimes applied to this group

across different jurisdictions. The study seeks to identify legal gaps, assess risks, and formulate recommendations for improving both national and international legal frameworks.

The specific objectives include:

- analyzing the evolution of the “digital nomad” concept in scholarly literature and international legal practice;
- conducting comparative legal analysis of migration, tax, and labor regulations in countries offering digital-nomad-specific visas;
- identifying risks regarding tax residency and corporate liability for employers;
- exploring social and ethical impacts of digital nomads upon local host communities;
- recommending harmonization of legal regulation for this group of mobile workers.

The methodology includes comparative legal analysis, case studies, examination of international agreements, and secondary analysis of statistical and normative data. Geographically, the study covers countries with operating digital nomad programs (Estonia, Portugal, Croatia, Malta, etc.) and Kazakhstan, which is in the process of developing national mechanisms to attract such professionals.

The novelty of the study lies in its systematic legal-scientific treatment of the digital nomad phenomenon, identification of international regulatory trends, and formulation of recommendations to adapt national legal systems to new forms of transnational labor mobility. Special attention is given to potential jurisdictional legal conflicts arising from the lack of internationally aligned standards.

Consequently, this research combines theoretical and practical approaches, aiming to fill gaps in academic literature and propose effective legal tools for regulating the status of digital nomads in the context of global migration.

Literature review

1. Conceptualization of Digital Nomads

The term “digital nomad” was first introduced by Makimoto & Manners (1997), defining these individuals as professionals liberated from geographic constraints (Makimoto & Manners, 1997). Contemporary scholarship refined this concept, noting that many digital nomads initially worked on tourist visas, often informally or illegally, before the emergence of formal programs. The concept of lifestyle mobilities frames digital nomads as embodying freedom of movement and work, untethered from a fixed residence.

2. Digital Nomad Visas: Global Trends and Typologies

Over fifty countries have implemented digital nomad visas, including Estonia, Portugal, Croatia, Spain, Malta, and Italy. Comparative studies have shown contrasting social responses even in structurally similar programs (e.g., Estonia vs Portugal) and identified diversity in requirements for income, insurance, and access to local job markets (OECD, 2023).

3. Migration Law and “Selective Migration”

The notion of selective migration describes strategies to attract mobile, highly qualified individuals (Hensellek & Puchala, 2022). For instance, Estonia’s visa is integrated into its digital transformation agenda, while Portugal positions its program as part of post-crisis economic recovery. These visa regimes, while economically beneficial, may exacerbate global inequalities by favoring newcomers at the expense of local populations (Facchini & Lodi-giani, 2014).

4. Visa Regimes and Legal Ambiguity

Prior to formal digital nomad visas, working on tourist visas persisted. Current visa frameworks vary: Estonia requires monthly income of approximately €3,500–4,500 with strict remote work conditions; Portugal has similar income thresholds and limited allowances for local client work; Croatia issued over 3,700 digital nomad visas in 2024 and anticipates 30–35% growth (Reichardt 2023; Nomads Embassy 2025; Baranova 2025).

5. Corporate and Tax Risks

Digital nomad visa policies prompted legal discourse on issues such as tax residency and permanent establishment (PE) of employers. Press reports and professional advisories (e.g., by KPMG and PwC) warn that remote working models may trigger corporate tax obligations for businesses with employees abroad (KPMG 2024).

6. Regulatory Settings and Institutional Initiatives

As reported in the EY Global Immigration Index (March 2025), numerous countries are adopting or revising remote-work and digital nomad visa frameworks. European countries lead these innovations, while the U.S. lacks an official digital nomad policy, working outside context-specific visas remains legally uncertain. International bodies like OECD and the EU are exploring coordinated tax and migration policies for remote labor (EY Global 2025).

7. Socio-Urban Impacts

In Portugal and Spain, rising real estate prices in tourist regions and displacement of local residents

have been attributed to digital nomad influx. Simultaneously, these programs have attracted knowledge retention, investment, and regional development potential (Baranova 2025).

8. Ethical and Legal Dilemmas

Issues include whether visa schemes guarantee adequate social protection and medical coverage, and whether they provoke jurisdictional conflicts over tax residency. Estimates (e.g., by analysts Hall at KPMG) suggest potential global tax redistributions on the order of \$40 billion, necessitating harmonized international frameworks (KPMG 2024).

Despite rapid growth, the literature reveals no unified legal framework. Digital nomad visa schemes are fragmented, tax and social policies are inconsistent, and labor mobility raises fresh ethical and regulatory challenges. The subsequent section details applying comparative-legal methods to systematize these findings within this study's methodology (Financial Times 2024).

Research methodology

This study is based on a comprehensive comparative legal analysis incorporating elements of case studies and content analysis of legal and regulatory sources. This methodological approach enables a holistic assessment of the digital nomad phenomenon through the lenses of international law, migration regulation, tax policy, and corporate responsibility.

The comparative legal method was employed to examine and contrast legal regimes across various countries that offer digital nomad visas, identifying common features, divergences, and best practices. Case study analysis was applied to specific national programs, including visa regimes in Estonia, Portugal, Croatia, and Kazakhstan. The content analysis encompassed international treaties, national laws, government regulations, and analytical reports from international organizations such as the OECD, ILO, IMF, and the European Commission.

Results and discussion

1. Legal Regimes of Digital Nomad Visas: A Comparative Analysis

The comparative legal review revealed the following key features of digital nomad visa regimes:

- Estonia was among the first countries to introduce an official digital nomad visa in 2020. Eligibility criteria include proof of remote employment with a foreign employer or self-employment outside Estonia, a minimum income of €3,504 over the past

six months, and valid health insurance. The visa allows a stay of up to one year with possible extension (Government of Estonia, 2020).

- Portugal offers several pathways, including the D7 Visa for independent professionals and the dedicated Digital Nomad Visa launched in 2022. Requirements include a minimum monthly income of approximately €3,040, a contract with a foreign employer or proof of entrepreneurial activity, and access to health insurance. Portugal offers broader social protections to digital nomads (KC & Triandafyllidou, 2023).

- Croatia introduced its digital nomad visa in 2021, granting a one-year stay without the possibility of extension. Applicants must demonstrate income of at least €2,250/month, secure accommodation, possess health insurance, and have no criminal record. Local employment or freelancing is explicitly prohibited (European Migration Network, 2022).

- Kazakhstan announced the Digital Nomad Residency Program in 2024 to attract IT professionals and freelancers. Key criteria include verified remote employment, a minimum monthly income of around USD 2,000, and valid health insurance. The program emphasizes streamlined registration and access to designated tech hubs (Electronic government of the Republic of Kazakhstan, 2024).

Common features across all programs: proof of remote employment, minimum income threshold, valid health insurance, time-limited stay, no access to local labor markets.

2. Tax Aspects and Residency Status

Tax regulation varies widely in determining digital nomads' tax residency:

- Estonia applies the 183-day rule or the presence of a center of life interests to define tax residency. Those staying under six months are generally not considered tax residents (KC & Triandafyllidou 2023).

- Portugal offers a flexible model through its Non-Habitual Residency (NHR) regime, granting tax benefits to high-skilled professionals. Digital nomads present for more than 183 days become residents but may qualify for reduced rates (Baranova 2025).

- Croatia exempts digital nomads from income tax on foreign-sourced earnings, but indirect taxes (e.g., VAT on rent) still apply (Gadzo 2022).

- Kazakhstan is in the process of developing legal norms on tax residency for digital nomads. The draft framework applies the 183-day rule, with proposed exemptions on foreign-sourced income (Elec-

tronic government of the Republic of Kazakhstan, 2024).

Thus, there is no internationally coordinated tax regime for digital nomads, increasing the risk of double taxation and regulatory uncertainty for both migrants and employers.

3. Corporate Responsibility of Employers

- A critical issue is the potential creation of a permanent establishment (PE) due to an employee's prolonged foreign presence, which could trigger corporate tax liabilities (KC & Triandafyllidou, 2023).

- In Estonia and Croatia, exemptions exist if the employee does not conduct commercial activity on behalf of the employer locally.

- In Portugal, the PE risk is higher, especially if the employee performs managerial tasks or signs contracts on behalf of the company.

- Kazakhstan currently lacks regulation addressing PE implications under its digital nomad program.

Employers must consult tax professionals and adopt internal protocols to mitigate legal risks.

4. Socio-Ethical Implications

Digital nomadism has notable socio-economic effects:

- In Portugal, Croatia, and Estonia, rising rental prices in tourist areas have led to local discontent. Neighborhoods in Lisbon, Zagreb, and Tallinn have undergone gentrification, tailored to the digital nomad lifestyle (KPMG 2024; KC & Triandafyllidou 2023).

- Conversely, governments highlight economic benefits such as increased consumption, growth of service industries, and expansion of creative and tech sectors. Local business associations often support these programs.

- Kazakhstan is in the early stages of building infrastructure for digital nomads. The development of tech parks and coworking spaces is seen as an economic opportunity (Electronic government of the Republic of Kazakhstan, 2024).

5. Legal Challenges and Risks

Key legal challenges identified include: lack of a standardized international definition for digital nomads, divergent tax systems resulting in double taxation risks, limited labor and social protections for digital nomads, unclear employer obligations regarding permanent establishment status, and social tensions due to gentrification and rising costs in host cities (Hannonen, 2020).

The results of the analysis of legal sources and international practices reveal a number of key issues related to the legal status of digital nomads. Despite

the growing interest of states in developing special visa regimes and tax incentives, the overall regulation of this category remains fragmented, poorly coordinated, and often inadequate in addressing the specific nature of remote work and high mobility. This section discusses the most critical conceptual, tax-related, socio-legal, and institutional challenges, as well as potential pathways for international legal harmonization aimed at addressing the identified gaps.

1. Conceptual and Legal Ambiguities in Defining Digital Nomads

There is no universally accepted legal definition of "digital nomad" in international law (Makimoto & Manners, 1997). Countries adopt localized regulatory frameworks aligned with national migration and economic interests, without global coordination. This fragmented approach results in legal uncertainty in taxation, labor rights, and social protection (Baranova 2025).

The hybrid nature of digital nomadism—at the intersection of remote work, freelance activity, and international mobility—complicates the development of cohesive legal norms.

2. Double Taxation and Fiscal Risk

A central concern is the risk of double taxation due to inconsistent residency criteria (e.g., presence-based vs. center-of-interests models). Existing tax treaties, including the OECD Model Tax Convention, are primarily designed for traditional employees and do not account for remote work specifics (KPMG 2024).

Without tailored agreements, digital nomads may inadvertently breach tax laws in one or more jurisdictions. Employers also face exposure to PE classification and resultant tax obligations, especially when operating distributed teams.

3. Social Security and Labor Rights

Most visa regimes for digital nomads do not include access to host countries' social security systems. Lack of coverage in pensions, health insurance, or unemployment benefits creates vulnerabilities in the event of illness or job loss (OECD 2024).

Additionally, the applicability of local labor laws to remote work contracts with foreign employers remains unclear, and conflict resolution mechanisms are lacking.

4. Socio-Urban Effects and Sustainability Challenges

The influx of digital nomads impacts urban ecosystems. Rent inflation, resident displacement, infrastructure strain, and gentrification are evident in

cities like Lisbon, Tallinn, and Zagreb (KC & Triantafyllidou, 2023).

While economic benefits such as increased consumer activity and job creation are noted, community tensions and anti-nomad sentiment have emerged in response to rapid changes.

For Kazakhstan, these international experiences should guide the development of preemptive measures to ensure sustainable integration.

5. Prospects for International Legal Harmonization

To address identified legal gaps, a global dialogue on harmonizing digital nomad regulations is warranted. Potential steps include: standardized criteria for tax residency of digital nomads, multi-lateral treaties addressing double taxation and social protection, recommendations by international organizations (e.g., OECD, IMF) on digital nomad migration and labor policies, a unified international visa classification for digital nomads (OECD, 2024; IMF, 2023; Broek et al., 2024).

An initiative to establish a global “Digital Nomad Convention” could provide a framework for coordinated regulation.

Thus, in light of international trends, Kazakhstan should:

1. Clearly define the legal status of digital nomads, including tax and migration obligations;
2. Implement transparent taxation mechanisms aligned with global double taxation avoidance practices;
3. Develop legal provisions for mandatory health insurance and basic social protections;
4. Create infrastructure to minimize negative effects on housing and local communities;
5. Engage in international expert forums to contribute to global regulatory standards.

Given the dynamic nature of digital migration, future research should focus on: behavioral characteristics of digital nomads, economic impact on local labor markets, jurisdictional conflicts between

states, evolution of corporate strategies in managing distributed teams, and integration mechanisms of digital nomads into host economies. A robust legal theory of digital nomadism will require interdisciplinary collaboration among legal scholars, economists, sociologists, and migration experts.

Conclusion

This study has demonstrated that digital nomadism represents a novel form of international mobility, situated at the intersection of labor migration, knowledge exchange, and remote work. The global rise in digital nomadism and corresponding visa regimes highlight the urgent need for coherent legal regulation.

Comparative analysis revealed wide variation in visa policies, residency criteria, taxation, and social protection measures. Significant legal gaps persist, including the absence of unified standards, tax risks, and employer obligations.

The socio-economic effects of digital nomadism, both positive and adverse, warrant attention. While these workers drive innovation and economic activity, they also exert pressure on housing markets and urban infrastructure.

For Kazakhstan, a newcomer in this field, it is essential to learn from both successful and problematic international practices. A balanced regulatory framework is needed to safeguard the interests of digital nomads and local communities alike.

Long-term, international cooperation should be pursued to develop global norms, treaties, and enforcement mechanisms that reflect the interests of all stakeholders in the digital mobility ecosystem.

Funding

This research was funded by the Committee of Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant № AP26104137).

References

Bahri, M. (2024). Evidence of the digital nomad phenomenon: From “Reinventing” migration theory to destination countries readiness. *Heliyon*, Volume 10, Issue 17, e36655, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2024.e36655>.

Baranova, V. (2025). Portugal Digital Nomads Visa. <https://imin-portugal.com/blog/portugal-digital-nomad-visa/>

Broek, T., Haubrich, G., Murero, M. & L. Razmerita (2024). Digital Nomads. file:///C:/Users/User/Downloads/Highres-AURO-RA-NIwhitepaperonDigitalNomads.pdf

Electronic government of the Republic of Kazakhstan. (2024). Digital Nomad Residency Program Concept. https://egov.kz/cms/en/news/digital_nomad_residency

European Migration Network (2022). Croatia 2021 Main developments in migration and international protection, including latest statistics. https://home-affairs.ec.europa.eu/system/files/2022-08/EMN_factsheet2021_HR.pdf

EY Global. (2025). Global Immigration Index: Remote Work and Digital Nomads. Ernst & Young.

IMF. (2023). Remote Work and Tax Base Mobility: A Global Perspective

Facchini G., Lodigiani E. (2014). Attracting skilled immigrants: An overview of recent policy developments in advanced countries. *Natl Inst Econ Rev* 229: R3–R21. <https://doi.org/10.1177/0027950114422900102>

Financial Times. (2024). Digital Nomads Face New Tax Challenges Amid Growing Mobility.

Government of Estonia. (2020). Digital Nomad Visa Program Guidelines.

Gadzo, S. (2022). Croatia: A New (Tax-Free) Promised Land for Digital Nomads (Part II). <https://legalblogs.wolterskluwer.com/international-tax-law-blog/croatia-a-new-tax-free-promised-land-for-digital-nomads-part-ii/>

KPMG. (2024). Tax Implications of Digital Nomad Visas: Global Survey

KC, B., & Triandafyllidou, A. (2023). Selective Migration Policies and Digital Nomads. *Migration Studies*, 11(2), 312–328

Makimoto, T., & Manners, D. (1997). Digital Nomad. Wiley.

Nomads Embassy (2025). Croatia Digital Nomad Visa Updates in 2025. <https://nomadsembassy.com/croatia-digital-nomad-visa-updates-2025/>

Hensellek, D., & Puchala, M. (2022). Digital nomads and the Rome I Regulation: Legal Challenges of a New Way of Working. *International Journal of Law and Information Technology*, 30(1), 58–75.

Hannonen, O. (2020). In search of a digital nomad: defining the phenomenon. *Information Technology & Tourism*, 22(3), 335–353. <https://doi.org/10.1007/s40558-020-00177-z>

OECD. (2023). Tax Challenges Arising from the Digitalisation of the Economy: Interim Report 2023

OECD. (2024). Model Tax Convention on Income and on Capital. https://www.oecd.org/en/publications/2017/12/model-tax-convention-on-income-and-on-capital-condensed-version-2017_g1g8769b.html

Reichardt, K. (2023). Digital Nomad Visa Estonia: Your Complete Guide to Remote Work. <https://www.jobbatical.com/blog/digital-nomad-visa-estonia-guide>

Information about authors:

Bokayev Baurzhan Nurlanovich – PhD, Center for Research and Development of Intellectual Potential (Kazakhstan, Astana, e-mail: baurzhanbokayev@gmail.com).

Torebekova Zulfiya Temirkhanovna (corresponding author) – PhD, Center for Research and Development of Intellectual Potential (Kazakhstan, Astana, e-mail: zulfiya1978@mail.ru).

Nauryzbek Madina Dulatkyzy – DPA, Center for Analytical Research and Evaluation of the Supreme Audit Chamber of the Republic of Kazakhstan (Kazakhstan, Astana, e-mail: m.nauryz@gmail.com).

Baktyyarov Asset Dulatovich – PhD Student, L.N. Gumilyov Eurasian National University, (Kazakhstan, Astana, e-mail: baktiyarov.asset@gmail.com).

Авторлар туралы мәлімет:

Бокәев Бауржан Нұрланұлы – PhD докторы, Зияткерлік өлеуетті зерттеу жөніне дамыту орталығы (Қазақстан, Астана, e-mail: baurzhanbokayev@gmail.com).

Төрекекова Зулфия Темірханқызы (корреспондент-автор) – PhD докторы, Зияткерлік өлеуетті зерттеу жөніне дамыту орталығы (Қазақстан, Астана, e-mail: zulfiya1978@mail.ru).

Наурызбек Мадина Дұлатқызы – DPA, Қазақстан Республикасы Жоғарғы аудиторлық палатасының Зерттеулер, талдау жөніне бағалау орталығы (Қазақстан, Астана, e-mail: m.nauryz@gmail.com).

Бактияров Асем Дұлатович – докторант, Л.Н. Гумилев атындағы Еуразия ұлттық университеті, (Қазақстан, Астана, e-mail: baktiyarov.asset@gmail.com).

Сведения об авторах:

Бокаев Бауржан Нурланович – доктор философии (PhD), Центр исследований и развития интеллектуального потенциала (Астана, Казахстан, e-mail: baurzhanbokayev@gmail.com).

Торебекова Зульфия Темирхановна (автор-корреспондент) – доктор философии (PhD), Центр исследований и развития интеллектуального потенциала (Астана, Казахстан, e-mail: zulfiya1978@mail.ru).

Наурызбек Мадина Дулатовна – доктор государственного управления (DPA), Центр исследований, анализа и оценки Высшей счетной палаты Республики Казахстан (Астана, Казахстан, e-mail: m.nauryz@gmail.com).

Бактияров Асем Дулатович – докторант, Евразийский национальный университет имени Л.Н. Гумилева (Астана, Казахстан, e-mail: baktiyarov.asset@gmail.com).

Registered: June 29, 2025.

Corrected: September 09, 2025.

Accepted: September 20, 2025.